**UNIVERSITY OF THE WESTERN CAPE**

**FACULTY OF COMMUNITY AND HEALTH SCIENCES**

**SCHOOL OF NURSING**

# THE SELF-PERCEPTION OF PREPAREDNESS FOR MIDWIFERY PRACTICE OF FINAL-YEAR NURSING STUDENTS AT A UNIVERSITY IN THE WESTERN CAPE, SOUTH AFRICA

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# ABSTRACT

**Background:** Globally, nurses and midwives are the most important healthcare providers. In most countries, nurses and midwives are often the first point of contact to healthcare, and in many rural areas, they are the only point of contact for patients. Skilled midwives are essential for the care of pregnant women and the safe delivery of their infants. Midwives play an important role in promoting the health and wellbeing of women, newborns and their families. In South Africa, slow progress in reducing maternal mortality can be partially attributed to a lack of appropriately trained health professionals to render some basic maternal care services.

**Aim & objectives:** The aim of this study was to investigate the self-perception of preparedness for midwifery practice of final-year nursing students at a university in the Western Cape, South Africa. The objectives of the study were to: identify midwifery skills final-year nursing students found challenging to perform independently, determine the level of confidence of final-year nursing students for managing patients in the maternity unit, determine the level of comfort/confidence of final-year nursing students in key practice skills performance, and collect baseline evidence of nursing students' perceptions of self-preparedness to inform the higher education institution of gaps and needs identified by nursing students.

**Methodology:** A quantitative research approach using a descriptive survey design was implemented to gather information. A self-administered questionnaire using the Casey-Fink Readiness for Practice Survey was used. Due to the limited size of the population, an all-inclusive sampling strategy was utilised, with a sample size of N=217. At the time of the survey, only 164 nursing students attended class. Only 112 questionnaires were returned, yielding a response rate of 70.88%. All returned questionnaires had no missing data. SPSS Statistics version 25 was utilised for data analysis. Descriptive statistics, frequencies and tests for association were utilised.

**Findings:** The results of the study suggest that nursing students were not ready for the registered midwife role. Midwifery skills that nursing students found most challenging to perform independently were abdominal palpation, conducting normal deliveries, resuscitation of the newborn, conducting an episiotomy or giving episiotomy care, and handling obstetric emergencies. The majority of nursing students reported low confidence levels in independently caring for multiple patients in the maternity unit. Low levels of confidence were also reported in delegating tasks to nursing assistants, dealing with ethical issues related to patient care responsibilities, and assuming the midwife role.

**Conclusion:** The results of the study suggest that nursing students, on completion of the midwifery component of the nursing programme, perceived themselves as not prepared to assume the role of registered midwife. This study was confined to one university and the results cannot be generalised to all nursing students in South Africa.

**Recommendations:** The midwifery module can be structured to be offered over a longer period with extended clinical placement, which would provide students with the opportunity to integrate theory and practice. Clinical accompaniment by mentors can be conducted at the patient's bedside, affording nursing students the opportunity to have more hands-on practice. Standard operating procedures (SOPs) for clinical accompaniment of nursing students, clearly outlining the objectives to be met per year level at clinical facilities, need to be revised and updated. Standardised task lists or delegation books need to be instituted to afford nursing students exposure to prescribed objectives. Though there are staffing challenges at clinical facilities, dedicated ward preceptors would be beneficial for the supervision, guidance and support of nursing students at ward level. Further research should be conducted investigating the perceived self-preparedness of final-year nursing students for midwifery practice in South Africa.

## KEYWORDS

Experiences of nursing students

Midwifery clinical placement

Perceptions of nursing students

Preparedness

Student midwife

Undergraduate midwifery education

Undergraduate nursing education

# ABBREVIATIONS

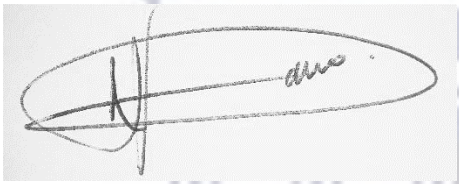
| | |
|---|---|
| CLE | Clinical learning environment |
| ICM | International Confederation of Midwives |
| MDG | Millennium Development Goal |
| MMR | Maternal mortality ratio |
| MOU | Maternity Obstetric Unit |
| NCCEMD | National Committee for Confidential Enquiry into Maternal Deaths |
| NCS | National Core Standards |
| NDP | National Development Plan |
| NEI | Nursing education institution |
| NSFAS | National Student Financial Aid Scheme |
| OSCE | Objective structured clinical examination |
| PPH | Postpartum haemorrhage |
| SANC | South African Nursing Council |
| SDG | Sustainable Development Goal |
| SFH | Symphysis fundal height |
| SoWMy | State of the World's Midwifery |
| SRMNAH | Sexual, reproductive, maternal, newborn and adolescent health |
| UHC | Universal Health Coverage |
| UN | United Nations |
| UNPF | United Nations Population Fund |
| WHO | World Health Organization |

# DECLARATION

I declare that the study entitled "The self-perception of preparedness for midwifery practice of final-year nursing students at a university in the Western Cape, South Africa" is my own work and that it has not been submitted to any university for a degree or examination. All the sources utilised or quoted have been listed and acknowledged by complete references.

Full name: Tebogo Nancy Ramahlo

Date: December 2020

Signed: 

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To the nursing students that participated in this study, thank you.

TO ALL YOUNG BLACK GIRLS IN DISADVANTAGED COMMUNITIES, IT IS DOABLE.

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# ORIENTATION TO THE STUDY

## 1.1 Introduction

Globally, nurses and midwives are the most important healthcare providers. In most countries, they are the first point of contact to healthcare, and in many rural areas, the only point of contact for patients. In South Africa, the healthcare system is primarily nurse-based, therefore the country requires competent nurses and midwives with the expertise to manage the burden of disease and meet the healthcare needs of individuals, families and communities (Western Cape Government Health, 2016). The adequacy and competence of nurses and midwives will aid in achieving the country's objective of improvement in the performance and outcomes of the healthcare system (National Planning Commission, 2012).

Nurses and midwives play a fundamental role in achieving universal health coverage and access to equitable healthcare for the population (Drennan & Ross, 2019). Globally, nurses and midwives comprise approximately half of the healthcare workforce; however, there remains a global shortage of nine million nurses and midwives (Drennan & Ross, 2019). This shortage in some countries is attributed to the under-investment in education and training of nurses and midwives and inconsistency between nursing education curricula in relation to the community disease profile, healthcare systems and needs of the population (World Health Organization, 2016).

The United Nations (UN) has compiled an agenda of 17 Sustainable Development Goals (SDGs) to be achieved by 2030 by all countries. The aim of the SDGs is to realise the human rights of all people, to strengthen world peace and to continue to achieve the objectives not yet achieved through the Millennium Development Goals (MDGs) (United Nations, 2015). In order to achieve universal health coverage and the SDGs, the World Health Organization (WHO) and UN note that there is a need for the recruitment, development, training and retention of nurses and midwives,

especially in developing countries, to render essential healthcare services that are of quality, are safe and effective to promote the health and wellbeing of the population (World Health Organization, 2016; United Nations, 2015). This training should be linked to impending diseases, mainly non-communicable diseases (National Planning Commission, 2012).

In South Africa, the National Development Plan (NDP) was drawn up as a guideline to improve the livelihoods of its people in all aspects, including economy, education and health, by 2030 (National Planning Commission, 2012). In order to provide quality healthcare that is universally accessible to all, there should be adequate health personnel, specifically nurses and midwives, to render these services, especially in poorer and rural communities (National Planning Commission, 2012). The training of nurses and midwives (to increase their number and improve the quality of service they provide) was identified as the most critical area requiring improvement (National Planning Commission, 2012). This could be achieved by expanding nursing education institutions (NEIs) and instituting an appropriately contextualised comprehensive curriculum focused on the district-based healthcare approach (National Planning Commission, 2012). The appointment of competent nurses and midwives to improve and focus on maternal, neonatal and child healthcare is of paramount importance to reduce maternal and infant mortality (National Planning Commission, 2012). The NDP 2030 promotes a shift from a disease-focused approach to care to a patient-focused approach to care that renders comprehensive healthcare services to all patients at first point of contact (National Planning Commission, 2012).



### 1.2 Background to the study

Skilled midwives are essential for the care of the pregnant woman and the safe delivery of her infant. Midwives have an important role in promoting the health and wellbeing of women, newborns and childbearing families (International Confederation of Midwives, 2010). Midwives

who are well trained and regulated by international standards have adequate competencies to meet 87% of the need for sexual, reproductive, maternal, newborn and adolescent health (SRMNAH) services (United Nations Population Fund, 2017). According to the 2017 State of the World's Midwifery (SoWMy) report that focused on the East and Southern African region, midwifery undergraduate education curricula were aligned to global and national standards. However, the inadequate number of academic personnel and insufficient number of clinical learning opportunities in clinical placement areas to enable nursing students to gain practical experience were challenges faced by most countries in the effective provision of the curriculum content (United Nations Population Fund, 2017). These challenges impacted on the quality of education and therefore compromised the development of confident and competent professionals (United Nations Population Fund, 2017).

The United Nations Population Fund (UNPF) (2014) report described the state of midwifery care and highlighted the urgent need for competent midwives. The survey was conducted in 73 low-income countries, which accounted for about 92% of the global maternal and newborn deaths and stillbirths; however, these countries only accounted for 42% of the global medical, midwifery and nursing personnel work, and the shortage in the maternal and child health services is most acute (United Nations Population Fund, 2014). The 2017 SoWMy report found that there was a recorded 3.3% decrease in maternal mortality ratio (MMR) annually from 1990 and 2015 for the region compared to the global annual 2.3% decrease. This indicated a great improvement in MMR from 1990, with 913 per 100 000 live births, to an estimated 455 in 2015 (United Nations Population Fund, 2017). It is noted that skilled midwives can decrease maternal mortality and perinatal deaths as they render immediate care to both mother and baby after birth (Chandekar, 2012). More emphasis needs to be placed on the training and employment of skilled and knowledgeable healthcare professionals who will be key to the improvement of maternal and child health services (National Committee for Confidential Enquiry into Maternal Deaths, 2013).

The maternal healthcare system in South Africa is serviced mainly by midwives and requires them to be competent and have the expertise to manage the country's burden of disease (National Department of Health, 2013). The 2017 SoWMy report found that the South African national survey indicated that the country as a whole had an adequate health workforce to render sexual, reproductive, maternal, newborn and adolescent health (SRMNAH) services. However, the "Saving Mothers 2011–2013: Sixth report on confidential enquiries into maternal deaths" highlighted the shortage of appropriately trained midwives as a significant contributory factor in 15.6% and 8.8% of assessable maternal deaths; moreover, poor quality of care was noted in 60.4% of maternal deaths (National Committee for Confidential Enquiry into Maternal Deaths, 2013). The MDG target in South Africa for reducing MMR to 38 maternal deaths per 100 000 live births by 2015 seemed unachievable, with a recorded 269 maternal deaths in 2010 (National Planning Commission, 2013). The 2014–2016 "Saving Mothers" report noted an improvement in quality of care with a decrease in potentially preventable deaths of 83.3 in 2014–2016, down from 92.6 in 2011–2013; however, a lack of skills and knowledge among midwives remained a contributory factor in 25% of maternal deaths with avoidable factors (National Committee for Confidential Enquiry into Maternal Deaths, 2018). This report also noted a 12.5% reduction in the national maternal deaths from 2011–2013 to 2014–2016; with 339 fewer maternal deaths in 2016 than in 2011 (National Committee for Confidential Enquiry into Maternal Deaths, 2018).

In South Africa, the lack of progress in reducing maternal mortality can be partially attributed to a lack of appropriately trained health professionals to render some basic maternal care services (National Planning Commission, 2013). Although the availability of more skilled health professionals does not necessarily mean good quality healthcare (National Planning Commission, 2013), equitable distribution and allocation of midwives is essential in ensuring delivery of safe, quality midwifery healthcare (World Health Organization, 2016). Chandekar (2012) reported that in India, there were 40 qualified midwives per 100 000 births and one qualified midwife per 2 500

births in rural areas. In Ethiopia, only 10% of births were assisted by a skilled healthcare professional, which is a doctor, nurse or midwife (Yigzaw et al., 2015). In South Africa, 91% of births were attended by skilled healthcare professionals for the country as a whole (National Planning Commission, 2013). While urban areas had 94% coverage of births attended by skilled health professionals, rural areas had 85% coverage (National Planning Commission, 2013).

### 1.3 Problem statement

In accordance with the regulations of the South African Nursing Council (SANC) (2007), all newly qualified South Africans who have successfully completed the degree or diploma in nursing (General, Psychiatric and Community) and midwifery, and are registered for the first time as professional nurses and midwives, are required to complete a compulsory remunerated 12-month community service in a public health facility before full registration as a professional nurse is approved. During this period, the nurse/midwife is upskilled and supported to be able to function as an independent practitioner and render improved healthcare to the population (SANC, 2007).

The researcher is employed as a clinical programme coordinator for nurse training for five years at a tertiary hospital in the Western Cape. During the orientation sessions for newly qualified professional nurses/midwives undertaking their community service and newly graduated professional nurses, many expressed anxiety about placement in maternity units and being expected to function as independent midwives. It is this anxiety that generated an interest for the researcher to formally investigate the self-perception of preparedness for midwifery practice of final-year nursing students.

There are numerous challenges for newly qualified midwives during the first post-qualification year. The transition from student to professional nurse is the most challenging and stressful period for most nursing students (Edwards et al., 2015; Guner, 2014; Hobbs, 2012). In the USA, newly

qualified midwives experience difficulties transitioning to practice which trigger a lack of professional confidence and often force them out of the profession (Ortiz, 2016; Casey et al., 2011). Newly qualified midwives feel anxious and frustrated when working in labour wards and neonatal units as they are exposed to litigations and high levels of physical and mental stress (Davies & Coldridge, 2015; Ndaba, 2013).

The South African National Department of Health (2013) reported that the majority of nursing students were dissatisfied with the clinical facilitation and accompaniment; felt that certain classroom theory was not applied to clinical situations; had few role models; experienced high stress levels; and were not confident and felt unprepared for their new roles as midwives.

The literature identified the need for competent (i.e. skilled and knowledgeable) healthcare professionals/midwives to render quality maternal and child health services. Limited published information on novice midwives' views on their level of competence or readiness to practise as independent healthcare practitioners was identified. The literature does not sufficiently address how midwives' perceived lack of skills and knowledge were measured in order to understand how these contribute to the challenges experienced by the healthcare services.

There is limited information about the self-perception of preparedness for midwifery clinical practice among final-year nursing students at the university of interest. Therefore, this study investigated the self-perception of preparedness for midwifery practice of final-year nursing students at a university in the Western Cape, South Africa.

### 1.4 Significance of the study

This study will provide information about needs identified by undergraduate nursing students which may be utilised by nursing higher education institutions with respect to the curriculum development, mentorship and support which should be provided in midwifery clinical placements.

### 1.5 Research question

What is the self-perception of preparedness for midwifery practice of final-year nursing students at a university in the Western Cape, South Africa?

### 1.6 Aim

The aim of this study was to investigate the self-perception of preparedness for midwifery practice of final-year nursing students at a university in the Western Cape, South Africa.

#### 1.6.1 Objectives

1. Identify Midwifery skills which final-year nursing students found challenging to perform independently
2. Determine the level of confidence of final-year nursing students for managing patients in the maternity unit
3. Determine the level of comfort/confidence of final-year nursing students in key practice skills performance
4. Collect baseline evidence of nursing students' perceptions of self- preparedness to inform the higher education institution of gaps and needs identified by nursing students



### 1.7 Definition of terms

**Table 1: Definition of terms**

| Terms | Definition | Operational definition |
|---|---|---|
| 1.7.1 Clinical learning opportunities | "The range of learning experiences available in a healthcare setting or other | This refers to the opportunities afforded to nursing students to link theory to practice in the |

| Terms | Definition | Operational definition |
|---|---|---|
| | experiential learning sites for a learner to gain the required clinical skills" (SANC, 2013) | clinical environment. |
| 1.7.2 Clinical placement | "The period spent by a learner in clinical and other experiential learning sites to ensure that the purpose of the programme is achieved" (SANC, 2013) | This refers to the time spent by nursing students in clinical areas to learn and achieve the programme objectives. |
| 1.7.3 Nursing student | "A person registered with the Council as a learner nurse or a learner midwife in terms of section 32" (SANC, 2013) | This refers to all nursing students enrolled for the final year of the R425 programme. This programme includes midwifery qualification. (Bachelor of Nursing degree). |
| 1.7.4 Preparedness | "A state of being ready or prepared for something or the proactive planning efforts designed to structure a response prior to an occurrence" (Veenema, 2019) | In this study, this means having the skills and confidence to practise independently as a midwife. |
| 1.7.5 National Student Financial Aid Scheme (NSFAS) | It is a financial aid scheme by the South African government aimed at financially assisting poor students to pay for their undergraduate tertiary education (National Student Financial Aid Scheme Act No. 56 of 1999). | The original definition applies. |
| 1.7.6 Perception | "The way in which something is regarded, understood, or interpreted" (Cambridge, 2017) | In this study, this means the views and opinions of the participants. |

### 1.8 Research methodology

A quantitative research approach using a descriptive survey design was used to gather information regarding the self-perception of preparedness for midwifery practice of final-year nursing students at a University in the Western Cape, South Africa. The Casey-Fink Readiness for Practice Survey was used (Casey et al., 2011). The research approach, study design, setting, population and

sampling, data collection, data management and ethical considerations will be discussed in detail in Chapter 3.

### 1.9 Study outline

The outline of the study is as follows:

Chapter 1 is the introduction and background to the research. It describes the problem statement, significance, research question, aims, objectives, operational definitions and the overview of the research methodology for the proposed study.

Chapter 2 describes the literature review, comprising themes relating to pre-registration midwifery education programmes, clinical learning environment, clinical learning opportunities, clinical preparedness, nursing students' support and nursing students' challenges with healthcare professionals.

Chapter 3 outlines the research methodology employed to answer the research question and achieve the aim and objectives of the study. It describes the research design, setting, population and sampling, research instrument validity and reliability, data collection methods, data analysis and ethical considerations.

Chapter 4 delineates the results of this study. The presentation of these is through the use of graphs and tables with well-defined descriptions of their meaning for this study.

Chapter 5 discusses the results of the study in relation to published literature.

Chapter 6 presents the summary of the study, its conclusion, recommendations and limitations.

## 1.10 Summary

In this chapter, the author presented an introduction and background to the study. The problem statement, significance of the study, the research question, operational definitions, the aim and objectives and the outline of the study were also presented.

# CHAPTER 2

# LITERATURE REVIEW

## 2.1 Introduction

Literature review is conducted in order to inform the researcher of the available knowledge and information regarding the topic of interest that has been published by other scholars (Brink et al., 2017). This is an empirical process for the planned research as it helps prevent duplication of existing information, assists the researcher to gain more insight regarding the topic of interest and aids in comparing new findings with the published literature (Brink et al., 2017).

Various studies have been conducted investigating different issues related to nursing education and training, including curricula, learning opportunities afforded to nursing students at clinical facilities, supervision and support for nursing students at clinical placement areas and preparedness of nursing students for role transition. A search of the literature was undertaken in the ScienceDirect, SCOPUS, SocINDEX with Full Text, PubMed, CINAHL (EbscoHost), Wiley Online Library, Google Scholar, SAGE Research Methods Online and Health Source: Nursing/Academic Edition databases, using the key words ‘preparedness’, ‘student midwife’, ‘midwifery clinical placement’, ‘undergraduate nursing education’, ‘undergraduate midwifery education’, ‘perceptions of nursing students’ and ‘experiences of nursing students’.

This review is presented under the following themes: undergraduate nursing and midwifery education, clinical learning, perceptions and experiences of nursing students and the South African government student funding system.

## 2.2 Undergraduate nursing and midwifery education

The ICM is the international regulating body for all midwifery professions. It determines the scope of practice, guides the development of practice regulations and endorses guidelines and standards that outline the context and structure of undergraduate midwifery education programmes (ICM, 2010). The World Health Organization's Safe Motherhood Initiative is aimed at ensuring that pregnant women have access to safe healthcare services that reduce the risk of maternal and neonatal death and illness (WHO, 1998). Strengthening midwifery services will ensure sustainability of the Safe Motherhood Initiative by ensuring that qualified and competent midwives are trained to promote the reduction of maternal and newborn mortality rates (ICM, 2010; World Health Organization, 2011a).

In South Africa, the Nursing Act No. 45 of 1944 made provision for the establishment of a national regulating body, the SANC. The SANC currently operates under the Nursing Act No. 33 of 2005, section 2 of which provides for the regulation of the nursing and midwifery professions and all matters related to the two professions (Nursing Act No. 33 of 2005). The Act further determines the roles and functions of this regulating body, which include but are not limited to the development, monitoring and supervision of all nursing and midwifery education and training programmes (Nursing Act No. 33 of 2005). The SANC, through its jurisdiction, develops various education and training regulations to guide the provision of standardised nursing and midwifery education within the country.

The SANC established and published, through government notice R425, "Regulations relating to the approval of and the minimum requirements for the education and training of a Nurse (General, Psychiatric and Community) and Midwife leading to registration", commonly known as the comprehensive four-year nursing and midwifery diploma/degree (SANC, 1985). The scope of nursing practice is governed by government notice R2598: "Regulations relating to the scope of practice of persons who are registered or enrolled under the Nursing Act, 1978 as amended"

(SANC, 1984) and the scope of practice for a midwife is an independent function regulated by government notice R2488: "Regulations relating to the conditions under which registered midwives and enrolled midwives may carry out their profession" (SANC, 1990). This programme has been criticised for the "excessive training in all four areas of care, and for inadequate preparation of graduates for competent practice in all areas, especially midwifery" (Blaauw et al., 2014, p. 3). In order to address the learning and teaching concerns which were identified in the SANC regulation R425 (for the current programmes), a new curriculum aligned to the changes in the health sector and higher education has been developed (Blaauw et al., 2014).

The NEIs offering this programme draft curricula, aims and objectives based on the SANC requirements as outlined in government notice R425 (SANC, 1985). In Gauteng, the midwifery component in public nursing colleges is completed over a period of two years, from second to third year (Ndaba, 2013). In the Western Cape, there are three institutions that offer the R425 programme. Two of these offer the midwifery module, both the theoretical and practical components, in the fourth year, and at the university under study, the theoretical and practical components of the module are offered in the third year. The year is divided equally between the midwifery and community nursing science modules. The total learning time for the midwifery component is 509 hours: 216 hours for theory and 293 hours for the practical requirements. The main practical/clinical learning settings are the low- and high-risk areas of midwifery, namely, antenatal clinic, antenatal ward, labour ward, postnatal ward and neonatal ward.

Table 2 presents various studies conducted in different countries, highlighting the different programme structures or types of programmes offered in these countries and their effects on nursing student's experience of the undergraduate training programme.

**Table 2: Summary of studies highlighting different programme structures**

| Summary of studies highlighting different programme structures | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Author, year** | **Title** | **Aim** | **Country** | **Programme(s) structure** | **Methods, design** | **Sample, data collection** | **Findings** |
| Blaauw et al., 2014 | Nursing education reform in South Africa - lessons from a policy analysis study | To analyse the process of the development of the new Nursing Qualifications Framework in South Africa. | South Africa | Four-year comprehensive course | Qualitative<br><br>Analytical policy analysis framework derived from Walt and Gilson | 28 key informants from SANC; national & provincial government; national nursing association; nursing academics; managers & educators,<br><br>In-depth<br>Interviews, case study | Due to the health demands of the country, changes in higher education qualifications framework and the challenge in the competency level of new graduates, a new nursing degree had to be developed that is aligned to the changes in higher education and health sector. The new four-year baccalaureate degree must be completed at a university in order to register as a professional nurse. This will be the only pathway to becoming a professional nurse. A three-year college diploma will enable registration as a staff nurse. |
| Armstrong & Rispel, 2015 | Social accountability and nursing education in South Africa | To explore key informants' perspectives on nursing education in South Africa | South Africa | Four-year comprehensive course | Qualitative | 44 key informants who were experts in the research area<br><br>Semi-structured interviews | No national staffing norms and standards for the different categories of nurses; impacts on service delivery and nursing education. |

| Summary of studies highlighting different programme structures | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Author, year** | **Title** | **Aim** | **Country** | **Programme(s) structure** | **Methods, design** | **Sample, data collection** | **Findings** |
| | | | | | | | Many nursing problems encountered due to the SANC's sub-optimal leadership provision as a regulating body.<br><br>Delayed SANC implementation of new nursing scope of practice for the different categories. Nursing curricula outdated and did not cater for the needs of the population and health system.<br><br>Lack of nursing student mentoring and supervision<br><br>Most nurse educators were not up to date, lacked modern teaching skills and had not kept abreast of clinical practice changes.<br><br>Nursing students were perceived to be non-caring towards patients and less committed to staying in nursing.<br><br>The shortage of resources in NEIs and clinical training |

| Summary of studies highlighting different programme structures | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Author, year** | **Title** | **Aim** | **Country** | **Programme(s) structure** | **Methods, design** | **Sample, data collection** | **Findings** |
| | | | | | | | facilities negatively impacts nursing student education. |
| Carolan-Olah & Kruger, 2014 | Final year students' learning experiences of the Bachelor of Midwifery course | To explore the concerns of third-year Bachelor of Midwifery students | Australia | Three-year degree in midwifery | Qualitative<br><br>Interpretative phenomenological analysis (IPA) approach | 32 third-year midwifery students<br><br>In-depth interviews | Nursing students focused more on achieving the set midwifery objectives and paid less attention to study units that did not align to clinical practice. They valued: (a) clinical learning more as they perceived it as helping them prepare for clinical emergencies; (b) inclusive teaching, where their opinions were valued and they were engaged in debate, more than prescriptive or directive teaching approaches; and (c) the support they received from midwifery lecturers as they were knowledgeable and approachable. |
| Lakhani et al., 2018 | Experiences of the graduates of the first baccalaureate midwifery programme in | To explore the experiences of the first graduates of a Bachelor of Science in | Pakistan | Two-year degree in midwifery | Qualitative<br><br>Descriptive | The first 21 graduates of the BScM programme | Nursing students valued the different teaching techniques used by the lecturers They found clinical learning valuable as they had hands-on practice |

| Summary of studies highlighting different programme structures | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Author, year** | **Title** | **Aim** | **Country** | **Programme(s) structure** | **Methods, design** | **Sample, data collection** | **Findings** |
| | Pakistan: A descriptive exploratory study | Midwifery (BScM) programme | | Two-year diploma [Lady Health Visitor (LVH)]<br>One-year diploma (nurse-midwife) following three-year nursing diploma<br>18-month diploma [community midwife (CMW)] | exploratory study | Focus group discussions using a semi-structured interview guide | opportunities. They had improved their interpersonal skills, e.g. communication, advocacy. A majority were satisfied with the course structure but suggested an inclusion of leadership and management modules. They suggested a standardised assessment processes as they felt educators utilised different methods of marking. |
| Schytt & Waldenstrom, 2013 | How well does midwifery education prepare for clinical practice? Exploring the views of Swedish students, midwives and obstetricians | To investigate views about Swedish midwifery education | Sweden | 18-month midwifery programme after three-year Bachelor of Nursing | Nationwide survey | 171 nursing students<br>121 midwifery graduates<br>162 midwives<br>108 obstetricians<br>Self-administered questionnaires | Nursing students were more satisfied with how midwifery education prepared them for clinical work compared to midwives and obstetricians. Qualified midwives and obstetricians reported low competence levels of new graduate midwives. Nursing students, midwives and |

| Summary of studies highlighting different programme structures | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Author, year** | **Title** | **Aim** | **Country** | **Programme(s) structure** | **Methods, design** | **Sample, data collection** | **Findings** |
| | | | | | | | obstetricians reported a limited timeframe being allocated to intrapartum care with more time allocated to research and thesis writing. |
| Chandekar, 2012 | Preparedness of prospective nurses to work as midwives in hospital and community | To assess curriculum adequacy, preparedness and job preferences of prospective nurses | India | General Nursing<br><br>BSc Nursing Programme | Descriptive exploratory survey | 200 final-year nursing students<br><br>Semi-structured self-report questionnaire | A majority of nursing students reported adequate allocation of clinical hours with a minority reporting adequate theoretical time as some topics were not covered by lecturers. A majority were not confident practicing independently and needed in-service training prior to commencing practice. Only 7% of nursing students were prepared to work in midwifery units. |
| Yigzaw et al., 2015 | How well does pre-service education prepare midwives for practice: Competence assessment of midwifery students | To assess the competence of students who completed basic<br><br>midwifery education | Ethiopia | Direct entry diploma and degree<br><br>One-year post-basic midwifery | Cross-sectional study | 484 graduating students<br><br>Interview | Learning environments were rated negatively, with nursing students reporting an inadequate number of preceptors. Nursing students reported having received poor support from skills laboratory assistants but |

| Summary of studies highlighting different programme structures | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Author, year** | **Title** | **Aim** | **Country** | **Programme(s) structure** | **Methods, design** | **Sample, data collection** | **Findings** |
| | at the point of graduation in Ethiopia | | | training for diploma nurses | | Direct observation of performance (OSCE) | found support offered by classroom instructors adequate, including classroom resources. Nursing students performed well in intrapartum care activities while performing poorly in assisted deliveries. Male nursing students reported higher scores in clinical competence and experience. |
| Skirton et al., 2012 | Preparedness of newly qualified midwives to deliver clinical care: An evaluation of pre-registration midwifery education through an analysis of key events | To determine whether the student midwives' educational programme had equipped them to practise competently after entry to the professional register | United Kingdom | Three-year midwifery degree<br><br>18-month midwifery degree for registered adult nurses | Qualitative<br><br>Prospective, longitudinal | 35 newly qualified midwives (NQMs)<br><br>Participant diary entries | NQMs reported a low level of confidence in decision-making when faced with challenges, especially in high-risk settings. They reported a lack of practical experience managing intrapartum emergencies but reported high levels of the theoretical knowledge gained at university. They reported some level of frustration with workloads, shortages of staff and poor recordkeeping practices. |

| Summary of studies highlighting different programme structures | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Author, year** | **Title** | **Aim** | **Country** | **Programme(s) structure** | **Methods, design** | **Sample, data collection** | **Findings** |
| | | | | | | | Midwifery curriculum perceived as crowded and more focused on numbers (objectives). |

### 2.3 Clinical learning

Nursing and midwifery are practice-based professions (Muthathi et al., 2017) that incorporate both theoretical and clinical learning. Clinical learning plays a vital role in preparation of nursing students for practice, as it is during this time that nursing students apply theoretical knowledge to real-life situations. It enables them to integrate learned theory into practice. Furthermore, clinical practice enables nursing students to expand their professional competence, thus fostering self-directedness and independence (Papp et al., 2003).

#### 2.3.1 Clinical hours

Worldwide, clinical learning is an integral component of undergraduate nursing and midwifery programmes, with the total number of hours to be acquired by nursing students determined by the professional regulating bodies. There is a wide variation in the number of clinical hours specified in different programmes. Where clinical learning hours are not specified, requirements may be stipulated as a percentage of academic time. A further literature search conducted in March 2021 yielded no published studies pertaining to clinical hours/experience for nursing and midwifery students in the SADAC countries or sub-Saharan Africa.



In South Africa, midwifery forms part of the four-year comprehensive course, and the minimum number of clinical hours required for the midwifery component is 400 (SANC, 1985). In Australia, nursing students enrol for a three-year Bachelor of Midwifery programme and must complete 1 150 clinical hours over the course of the programme (Carolan-Olah & Kruger, 2014), while in Iceland, 65% of the two-year midwifery diploma must be completed in clinical practice (Gottfreðsdóttir & Nieuwenhuijze, 2018). The four-year Bachelor of Midwifery degree in India demands a higher (1 356) number of clinical hours (Chandekar, 2012), while the Netherlands prescribes fewer clinical hours (45% of the programme time) to be completed over their four-year Bachelor of Midwifery programme (Gottfreðsdóttir & Nieuwenhuijze, 2018).

The UK offers a variety of direct entry midwifery programmes (Nursing and Midwifery Council, 2019). The UK Nursing and Midwifery Council (NMC) is the regulating body for all nursing and midwifery professions and also regulates NEIs to ensure that they render midwifery education that prepares responsive midwives who will be able to render quality woman-centred care to their patients (Fraser et al., 2013). All midwifery programmes prescribe that the programme hours are divided equally between theoretical and clinical components of the programme, that is, 50% theory and 50% practica (Nursing and Midwifery Council, 2019). The UK midwifery programme is divided into three streams for entry, varying in duration, namely three years, two years and 18 months (Nursing and Midwifery Council, 2019). Students with no previous nursing or midwifery experience enrol for the full-time three-year midwifery programme and are required to complete 4 600 hours over the period of enrolment to be registered as a qualified midwife (Nursing and Midwifery Council, 2019). Nurses registered with the NMC may enrol for the full-time two-year midwifery programme and have to complete 3 600 hours over the duration of enrolment (Nursing and Midwifery Council, 2019). Nurses registered with the NMC who require recognition of the qualification by European Union member states must complete a full-time 18-month midwifery programme with 3 000 hours of practica, followed by 12 months of professional midwifery practice (Nursing and Midwifery Council, 2019).



### 2.3.2 Clinical learning environment

Papp et al. (2003) described the clinical learning environment (CLE) as a habitat surrounding the nursing student consisting of various factors, viz. clinical setting, personnel, patients, preceptors and clinical mentors which impact the nursing student's behaviour (D'Souza et al., 2015) and influence the clinical learning outcomes (Dunn & Hansford, 1997). The CLE further enables nursing students to develop critical thinking skills, acquire knowledge and professional skills, and develop decision-making skills in nursing care (Karabulut et al., 2015), empowering them to

become empathetic, confident and competent professionals (Van der Riet et al., 2018; Vuso & James, 2017). The quality of patient care and the safety of care rendered by nursing students is dependent on the effectiveness of the CLE, the support received by nursing students and how they are socialised into the profession (Nordquist et al., 2019).

The CLE is vital in the socialisation of nursing students into the nursing and midwifery culture as it promotes and impacts the effectiveness of clinical learning (Ebert et al., 2016). The concealed curriculum of the culture of clinical settings promotes the status quo of acquiescence, impeding new methods of learning and practice in clinical areas, thus deterring development of the philosophical underpinnings of nursing and midwifery for nursing students (Ebert et al., 2016; Guner, 2014).

### 2.3.3 Clinical skills/simulation laboratories

Simulation laboratories are essential for teaching clinical skills as they afford nursing students opportunities to practise skills in a safe environment with continuous supervision and support, making such learning for nursing students invaluable (Haraldseid et al., 2015; Fraser et al., 2013). This facilitates the acquisition of dexterity in basic nursing skills and develops the ability to react with urgency during an emergency through simulated practice, thus improving confidence levels (Fraser et al., 2013).

In a study conducted in South Africa to determine the type of clinical facilitation nursing students preferred in the CLEs to facilitate learning, Muthathi et al. (2017) found that the discrepancy in the performance of procedures/skills in the CLE versus the clinical skills laboratory caused confusion among nursing students, as they were uncertain of the methodology to adopt in procedure/skill performance. Guner (2014) reported that nursing students' concerns and opinions regarding the incongruent practices between the skills laboratory and CLE were not taken into

consideration. Similar findings were reported by Vuso and James (2017) in a study conducted in South Africa to explore the perceptions of midwifery educators regarding the effects of limited standardisation of midwifery clinical education; they found that the educators acknowledge the difference in teaching clinical skills between the CLEs and NEIs. The lack of standardised policies and guidelines in clinical skills performance was reported to be the main contributory factor to the identified gap, which in turn led to the students' poor achievement of learning objectives and compromised quality of patient care (Vuso & James, 2017). Though the afore mentioned challenge was noted, no programme was developed to address

In Norway, Haraldseid et al. (2015), in an investigation of nursing students' perceptions of the learning environment in the simulation laboratory, reported that nursing students were frustrated with the discrepancies in clinical practice versus simulation laboratories in terms of procedure performance; this contributed to a lack of knowledge and confidence in clinical skills performance.

### 2.3.4 Clinical supervision and support

The SANC (2013) defines clinical supervision as "the assistance and support extended to the learner by the professional nurse or midwife at a clinical facility with an aim of developing a competent, independent practitioner" (p. 2). It is important that nursing students receive continuous supervision and support in clinical areas to ensure that they render safe, quality patient care (Kaddoura, 2010). Nursing students who receive continuous tripartite support from academic staff, clinical facilitators and preceptors thrive in their learning; this promotes integration of theory into practice and application of skills learnt in simulation laboratories (Fraser et al., 2013). Receptive clinical supervisors who are familiar with the learning needs of the nursing students are best as they adapt experiences to meet their learning needs (Hauck et al., 2017).

Clinical accompaniment is defined by the SANC (2013) as "a structured process by an NEI to facilitate assistance and support to the learner by the nurse educator at the clinical facility to ensure the achievement of the programme outcomes" (p. 1). D'Souza et al. (2015) found that nursing students reported high levels of satisfaction with the supervision and support they received from the preceptor and ward manager as they were frequently given feedback regarding their performance. In Turkey, a concern reported by students in an investigation to determine the level of preparedness of final-year nursing students for practice was lack of supervision and support from both clinical mentors and preceptors; even when present, supervisors often complained about insufficient time, resulting in their being unable to afford nursing students opportunities to practice skills with real patients (Guner, 2014).

Tyler-Viola et al. (2012), in a study in conducted in Zambia, found that due to the shortage of staff, lack of clinical nurse training units and the increased number of patients, nursing students often rendered patient care without supervision. The need for supervision and support in the CLE by the academic staff is imperative to alleviate nursing students' anxiety and confusion caused by the lack of standardisation of procedures (Muthathi et al., 2017; Fraser et al., 2013).



### 2.3.5 Clinical assessment and feedback

Clinical assessment and feedback are vital in informing nursing students of the progress made regarding application of theory to practice. The SANC (2013) defines assessment as "a structured process for gathering evidence and making judgements about a learner's performance in relation to the prescribed requirements for the programme" (p. 1). The poor assessment practices adopted by assessors, in order to avoid criticism from colleagues, resulted in nursing students being found competent on paper even though the students displayed a lack of knowledge in skill performance, which further promoted poor skill performance by nursing students (Vuso & James, 2017). Fraser

et al. (2013) emphasised that fair and appropriately standardised assessments are vital in ensuring that only nursing students who are competent and fit for practice are allowed to progress. Assessors need to be knowledgeable, competent and experienced in practice areas in which they are to assess the nursing student, thus supporting the validity of the assessment for the development of competent and safe practitioners (Fraser et al., 2013). Nursing students have reported concerns about the lack of confidence, knowledge and skills displayed by assessors during clinical assessment (Vuso & James, 2017; Fikre, 2016; Guner, 2014). The inconsistent practice and methodology of the assessors during demonstration of a procedure has led to a lack of confidence in assessors' competence and students have questioned marks allocated to them (Vuso & James, 2017; Fikre, 2016; Guner, 2014).

Feedback is vital in nursing education and training to affirm and confirm nursing students' theoretical knowledge and clinical skills performance (Haraldseid et al., 2015; Fraser et al., 2013). This enables nursing students to identify aspects that need improvement and strengths which promote confidence (Haraldseid et al., 2015). Feedback from supervisors further assists nursing students to reflect on their practice and improve their critical thinking skills (Ebert et al., 2016; Haraldseid et al., 2015). In Australia, Hauck et al. (2017) conducted a study evaluating the Teaching On The Run (TOTR) programme for preceptors which revealed that preceptors valued giving feedback to nursing students as it affirmed their strengths and what they were doing correctly in patient care, and nursing students valued the opportunities to do guided practice and render supervised patient care. Task-focused feedback (as opposed to generalised feedback), presented in a constructive and continuing manner, enables nursing students to improve skills and thrive in rendering quality patient care (Hauck et al., 2017).

### 2.4 Perceptions and experiences of nursing students

The perceptions and experiences of nursing students will be discussed and presented under the themes of education and training, and preparedness and readiness for practice.

#### 2.4.1 Education and training

A mixed methods study conducted by Fraser et al. (2013) in the UK exploring the contribution of lecturers towards preparing nursing students for competent practice found that all nursing students reported a high level of competence in independently rendering quality patient care. Nursing students were satisfied with the educational preparation; however, a significant difference was noted in the level of confidence in managing complex patients (Fraser et al., 2013). Nursing students enrolled for the three-year degree demonstrated greater confidence levels compared to those enrolled for the 18-month degree (Fraser et al., 2013).

Guner (2014) reported similar levels of satisfaction in a mixed methods study conducted in Turkey to determine the level of preparedness of final-year nursing students for the professional nurse role. The educational preparation comprised theoretical knowledge, clinical practice skills, clinical learning environment and supervision and support by both preceptors and mentors (Guner, 2014). In their qualitative descriptive study exploring nursing students' perceptions of traumatic events and how they were supported, Davies and Coldridge (2015) found that nursing students reported having adopted practices that devalued their commitment to patient care due to overcrowding and understaffing of the clinical areas, lack of supervision and support. In studies conducted in Ethiopia, the UK and Northern Ireland, the majority of nursing students reported a low level of satisfaction with the ward atmosphere and their sense of belonging within the wards (Fikre, 2016; Davies & Coldridge, 2015; D'Souza et al., 2015). Further concerns related to a lack of teaching by the facility nurses and student perceptions that they were only viewed as assistants and an extra pair of hands; however, for some students the conditions afforded them an opportunity to practise

independently and develop more skills (Davies & Coldridge, 2015). Fikre (2016), in an Ethiopian study which investigated factors affecting clinical practice competence, reported nursing students' low satisfaction levels with the support, supervision and teaching provided by practising nursing staff. D'Souza et al. (2015), by contrast, reported in their study that the majority of nursing students were satisfied with the support, supervision and teaching provided by the nurses in the clinical facilities.

Fikre (2016) noted that that most nursing students reported that clinical placement areas were not conducive for clinical practice, there was a lack of clinical supervision and support by the mentors, and a lack of availability of clinical logbooks related to practice in the clinical placement. Insufficient numbers of cases for clinical practice and the resistance of practising nurses to allocating patients to the students' limited skills acquisition (Guner, 2014). Nursing students have reported confusion with respect to the knowledge expected of them prior to clinical placements and being unsure of what was expected of them in clinical areas (Haraldseid et al., 2015). Licqurish and Seibold (2013), in a study exploring Australian Bachelor of Midwifery students' experiences of achieving competency for beginning practice, found that nursing students had a limited number of practicum hours and were thus more focused on acquiring the prescribed number of clinical experiences during a clinical placement which facilitated skill acquisition.

Muthathi et al. (2017) investigated the type of clinical facilitation nursing students preferred to facilitate learning and reported a difference in preferences regarding how demonstrations should be performed in the simulation laboratory: some preferred a verbal, step-by-step guide by the facilitator while others favoured a silent demonstration with an explanation of the steps once completed. However, all nursing students strongly preferred being informed of the procedure to be demonstrated to enable them to prepare prior to the simulation session (Muthati et al., 2017). Fikre (2016) reported on concerns raised by nursing students with not being informed and

orientated about the assessment method to be utilised during clinical examinations, which increased student anxiety as it was unclear what preparation was required.

### 2.4.2 Preparedness and readiness for practice

It is imperative that, after being found competent to practise, nursing students feel confident and ready to practise independently in the clinical setting. It is this readiness that enables nursing students to render safe, quality nursing care for patients and promote good relations with senior colleagues. Usher et al. (2015) conducted a study in Australia investigating nursing students' self-reported preparedness for practice. This study surveyed two sequential year cohorts of nursing students; both cohorts reported feeling prepared for practice. The cohorts reported a difference in the level of confidence in multiple patient care (Usher et al., 2015). The 2012 cohort reported increasing levels of confidence with an increase in patient numbers compared to the 2013 cohort that reported decreasing confidence levels as patient numbers increased (Usher et al., 2015).

Simulation laboratory activities assisted in the preparedness to practise; however, increased clinical placement hours, utilisation of the simulation laboratory with up-to-date, modern equipment and smaller numbers for the simulation laboratory class were identified as areas that needed improvement to enhance the levels of confidence and preparedness for practice (Haraldseid et al., 2015; Usher et al., 2015). Dlamini et al. (2014), in their research exploring new graduates' readiness for practice in Swaziland as perceived by the stakeholders, found that new graduates were perceived not to be ready for practice. The stakeholders also reported on the inability of new graduates to work independently and the need for continuous supervision (Dlamini et al., 2014).

Fraser et al. (2013) found that nursing students reported a high level of competence in independently rendering quality patient care. Davies and Coldridge (2015), however, reported that high levels of anxiety were reported by nursing students who felt unprepared to enter the profession

and practice independently. In a study describing the anticipations of nursing students regarding their transition to registered nurse, Kaihlanen et al. (2016) revealed that nursing students expressed high levels of anxiety regarding their lack of knowledge and confidence to practise independently and the increasing responsibilities and demands of their employer. This anxiety led to nursing students feeling unprepared to practise independently (Kaihlanen et al., 2016).

### 2.5 Funding challenges for South African nursing students

In South Africa, the cost of higher education impedes access to tertiary education for the many. The NSFAS, established to redress the discrimination of the past government and promote equal access to funding opportunities for higher education for all students, provides funding to students who meet stipulated criteria (National Student Financial Aid Scheme Act No. 56 of 1999). In 2017, a fully subsidised, free higher education and training scheme, the Department of Higher Education and Training (DHET) Bursary Scheme, was established for students who meet specific criteria (Department of Higher Education and Training, 2020). Despite this scheme, however, many students, including nursing students, struggle to afford higher education costs, which impacts learning opportunities and thus, potentially, preparedness.

### 2.6 Summary

This chapter presented the literature themes structured as follows: firstly, undergraduate nursing and midwifery education; secondly, clinical learning (with sub-themes clinical hours, clinical learning environment, clinical skills/simulation laboratories, clinical supervision and support, and clinical assessment and feedback); and lastly, perceptions and experiences of nursing students (with sub-themes education and training, and preparedness and readiness for practice). Limited published literature on the topic of interest in the South African context was found.

Despite the challenges identified with the comprehensive four-year undergraduate current programme, no formal standardised support programme has been developed to support newly qualified registered nurses and midwives. Each university, as an autonomous institution, is able to curriculate its theoretical and clinical programme, as long as these comply with the SANC standards and guidelines. This may lead to inconsistencies in learning opportunities and outcomes. This study, therefore, aimed to investigate the preparedness for midwifery practice of nursing students at the university of interest.

# CHAPTER 3

# RESEARCH METHODOLOGY

## 3.1 Introduction

In this chapter, the researcher presents the research methodology used to achieve the objectives of the study. The chapter describes the research design, setting, population, the data collection instrument, and the study's validity, reliability, data collection process, data analysis and ethical considerations.

## 3.2 Research approach

Quantitative research is a process that is organised and unbiased, using numerical data from a selected smaller group of the population to generalise findings to the larger population under study (Maree, 2007). Non-experimental designs are mainly used to elucidate phenomena and correlate relationships between variables (Brink et al., 2017). Such a study is conducted by observing and gathering information about the phenomena as it occurs in its natural setting (Brink et al., 2017). According to Brink et al. (2017), these designs answer the research question not by establishing the cause-and-effect relationship but by describing the variables.



## 3.3 Study design

In this study, a descriptive survey design was utilised. Surveys are used to gather more information about people's knowledge, opinions and attitudes by means of respondents responding to a set of questions (Polit & Beck, 2017; Gray et al., 2017). Descriptive studies are important in gathering evidence for nursing practice and are used to "observe, describe and document phenomena" (Lioselle et al., 2011, p. 155). In order to learn more about the attitudes, knowledge and opinions

people have about something, it is best if they give that information by answering a set of structured questions (Polit & Beck, 2017; Gray et al., 2017). In this study, the researcher gathered information by asking respondents to respond to a set of questions about their self-perception of preparedness for midwifery practice using a self-administered questionnaire.

This design for collecting data was selected as it enables a large number of respondents to be accessed in a limited time frame, promotes anonymity, is less time-consuming and the manner in which data is collected is independent of the researcher (Brink et al., 2017).

### 3.4 Setting

Brink et al. (2017) describe a research setting as the location where data will be collected and assembled by the researcher. This study was conducted at the School of Nursing at a university in the Western Cape, South Africa. The School forms part of the Faculty of Community and Health Sciences and offers a Bachelor of Nursing (four-year, or five-year extended curriculum) programme, masters in nursing and PhD programmes. The university offers two options for students entering the programme. The four-year Bachelor of Nursing curriculum is open to all applicants who meet the university and programme entrance requirements. An extended (five-year) programme is offered to selected applicants who do not meet the requirements for acceptance into the four-year programme. Up to fifty nursing students per year can be accepted for the extended programme.



### 3.5 Population and sampling

#### 3.5.1 Population

The study population is the group of people that are of interest to the researcher, meet the specific criteria the researcher is interested in studying and can be accessed by the researcher (Brink et al.,

2017). The target population was all final-year Bachelor of Nursing degree students at the school of nursing in the university. This population was selected as they were completing their training in 2019 and commencing community service practice in 2020. All students would have completed the midwifery practical component of the programme in the first semester of 2019; therefore, the study was conducted in the second semester of 2019. There were 217 final-year nursing students enrolled for the Bachelor of Nursing degree in 2019. The total number comprised female and male students who were registered for either the mainstream or the extended curriculum programme and those who were repeating the fourth year.

### 3.5.2 Sampling

Sampling refers to the process of selecting the group to participate in the study from the population to enable the researcher to gather data regarding the phenomenon studied in a manner that best represents the entire population of interest (Brink et al., 2017). For small groups, the whole population may be included in the study (Brink et al., 2017). In this study an all-inclusive sampling strategy was utilised, with a sample size of N=217.



#### 3.5.2.1 Inclusion criteria

- Final-year nursing students who had successfully completed the midwifery examinations by 2018
- Final-year nursing students who had completed the number of midwifery clinical hours required by the SANC for registration
- Students who were willing to voluntarily participate in the study

#### 3.5.2.2 Exclusion criteria

- Final-year students who were not willing to participate
- Final-year students who were ill or absent at the time of data collection

### 3.6 Data collection

Self-report instruments, often questionnaires consisting of statements or structured questions, are frequently used as a method of collecting data in survey research (Brink et al., 2017).

#### 3.6.1 Data collection process

Ethics approval was obtained from the Humanities and Social Sciences Research Ethics Committee at the university of interest, ethics reference number (HS19/6/30, approval period 13 August 2019 to 13 August 2020) (Appendix I). Permission to conduct the study at the university was obtained from the Rector of the university of interest (Reference number: UWCRP150819TNR, approval period 15 August 2019 to 15 August 2020) (Appendix II) and permission to access potential respondents was obtained from the Head of the School of Nursing of the university of interest (20 August 2019) (Appendix III).

Data collection took place at the School of Nursing of the university. With permission from the respective lecturers, data was collected after a class on the first Friday of term four, in October 2019. The fourth-year nursing students were divided into two groups, both of which attended lectures on Fridays.

On the day of data collection, 158 nursing students were present in the lecture session. The researcher explained the purpose of the study and invited the students to voluntarily participate in the study. The researcher explained the details of the study (title, aim, advantages and possible risks of the study, role of participants, privacy and confidentiality). Respondents had an opportunity to ask questions, and these were responded to by the researcher. The information sheet

was clearly explained to the respondents by the researcher (Appendix IV) and issued to respondents to help them understand the process. The researcher explained the consent forms (Appendix V) to the respondents, explaining the importance of voluntary participation. The consent forms were clear to read, concise, simple and understandable. The researcher clarified issues that arose and answered questions asked by the respondents prior to their signing of the consent forms. The researcher requested assistance from the respective lecturers with the distribution and collection of both the consent forms and questionnaires. It took approximately 20 minutes to complete the questionnaire. The anonymous completed questionnaires and consent forms were placed in separate unmarked boxes.

### 3.7 Data collection instrument

The data collection instrument is the instrument used to collect data and is dependent on the objectives and sample of the study. It consists of structured questions and often pre-determined responses from which to select (Polit & Beck, 2017; Brink et al., 2017).

The Casey-Fink Readiness for Practice Survey was used (Casey et al., 2011). The design of the survey items targeted the nursing activities and specific skills in which senior nursing students were expected to be competent prior to graduation. The aim of the tool was to analyse nursing students' perceived levels of readiness with respect to experience and personal characteristics.

The questionnaire consisted of three sections.

- **Section 1** focused on demographic data and senior practicum year information (clinical setting, total hours, preceptor and course content information).
- **Section 2** focused on nursing students' comfort with skill performance. Firstly, nursing students were asked to identify, from a list of 18 skills, the top three skills or procedures they were uncomfortable performing independently. The skills and procedures listed were mainly

for the medical and surgical wards. Secondly, they were asked to rate their level of confidence in managing multiple patient care assignments in medical/surgical wards using a Likert scale (1 = not confident, 2 = minimally confident, 3 = unsure, 4 = confident and 5 = very confident).

- **Section 3** focused on the nursing students' self-report regarding comfort/confidence in key practice skills, selected from a list of 20 skills, using a Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree and 4 = strongly agree).

Permission to use and adapt the instrument was granted by the authors via email (Appendix VI). The ICM and SANC endorse standards and guidelines that outline the expected structure and framework of midwifery undergraduate education programmes (ICM, 2010; SANC, 1985). The expectation is that, at completion of the programme, in order to be considered competent, nursing students must have mastered the basic midwifery skills listed by the two regulating bodies. The instrument was adapted using the essential basic midwifery practice competencies as a guideline. The expectation was that nursing students were competent in these basic skills as they had already completed the midwifery component of the programme.

The adapted survey consisted of three sections (Appendix VII):

**Section 1** focused on demographic data and midwifery placement experience: total hours, clinical setting, and course content information.

**Section 2** focused on comfort with clinical skill performance. The list of skills was adapted as mentioned above. Nineteen midwifery skills (antenatal, perinatal, postnatal and neonatal) were listed: firstly, nursing students had to list the top three skills they found uncomfortable performing independently; there was also an option to add skills not listed. Secondly, they were asked about their level of confidence in managing multiple patients in the maternity unit (namely managing two, three or four patients simultaneously). A Likert scale was utilised (1 = not confident, 2 = minimally confident, 3 = unsure, 4 = confident and 5 = very confident).

**Section 3** comprised a Likert scale with 20 items (1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree) asking for a self-report about confidence/comfort in key midwifery skills and an open-ended question asking about perceived support for preparation for the registered midwife role. This comfort/confidence questionnaire was used to identify domains of preparedness nursing students experienced during the midwifery placement and their development of confidence in those areas.

### 3.7.1 Validity of the instrument

Brink et al. (2017) describe validity as the instrument's ability to quantify what it intends to survey, given the perspective from which it is applied. The development process of the Casey-Fink Readiness for Practice Survey was overseen by a panel of experts. The instrument has good construct validity as it has been used in other studies (Oblea et al., 2019; Usher et al., 2015; Woods et al., 2015), and variance across all survey items was 48.2%.

Face validity helps in determining the clarity and readability of the content of the instrument and ensuring its ability to answer the research question (Brink et al., 2017). The supervisor and a midwifery specialist facilitator reviewed the instrument to establish face validity.

Content validity refers to the assessment of the instrument's ability to represent all components of the measurable variable (Brink et al., 2017).

**Table 3: Content validity**

| Objectives | Question number |
|---|---|
| 1. Identify midwifery skills final-year nursing students found challenging to perform independently | Section 2: 19 |
| 2. Determine the level of confidence of final-year nursing students for managing patients in the maternity unit | Section 2: 20 |

| Objectives | Question number |
|---|---|
| 3. Determine the level of comfort/confidence of final-year nursing students in key practice skills performance | Section 3: 21 |
| 4. Collect baseline evidence of nursing students' perceptions of self-preparedness to inform the higher education institution of gaps and needs identified by nursing students | Section 3: 22 |

#### 3.7.1.1 Reliability

Reliability refers to the instrument's ability to yield consistent results whenever utilised by different people or under the same circumstances (Brink et al., 2017). The reliability of the Casey-Fink Readiness for Practice Survey, measured with Cronbach's alpha, was 0.69 overall for the 20 items on comfort/confidence (Casey et al., 2011). The $\alpha = 0.69$, while not high, is acceptable for research purposes. Woods et al. (2015) utilised this instrument in a study conducted in Australia to explore the perceptions of preparedness of third-year nursing students. They tested the reliability and the Cronbach's alpha was 0.783 for all 20 survey items. This is acceptable, showing a good level of internal consistency, indicating that items are measuring the same fundamental construct.



#### 3.7.1.2 Pre-test of the instrument

The aim of the pre-test was to identify ambiguity, sensitivity, consistency and acceptability of the survey questions, identify shortcomings of the instrument and minimise errors that could occur in the main study (Brink et al., 2017). After permission was obtained from the Head of the School of Nursing of the university of interest, the researcher met with the fourth-year-level coordinator to discuss the aims and objectives of the study and requested assistance with the distribution and collection of the questionnaire. The coordinator randomly selected nursing students to meet with the researcher. Of the ten invited for the briefing session, only six attended.

The pre-test respondents were briefed about the purpose, aims and objectives of the study. The information sheet and consent form were explained, and they were invited to participate in the pilot. The researcher informed the respondents that they were exempted from the main study.

The pre-test respondents were requested to complete the survey and feedback was given to the researcher verbally. The following revisions were made to the instrument:

- Midwifery clinical experience: examples of the different levels were included.
- Average midwifery summative examination assessment mark was changed to examination mark.
- Preceptor definition was included.
- List of skills/procedures comfortable performing: instruction was written in bold and the option "I am independent in all skills listed" was excluded.
- An instruction on how to complete question 21 was included.

### 3.8 Data management

The questionnaires were collected on the same day they were administered. The researcher checked for completeness, and sorted, cleaned and organised the questionnaires. No incomplete questionnaires were found. Each survey questionnaire was assigned a number (code). The completed questionnaires are kept in a locked cabinet to which only the researcher has access and will be stored for a period of five years from date of collection, after which they will be destroyed.

#### 3.8.1 Data analysis

SPSS Statistics version 25 was utilised for data analysis. Data was converted into symbols and loaded into SPSS Statistics version 25, and the data was re-checked for accuracy with each entry.

In this study, descriptive and inferential data analysis methods were utilised. Descriptive statistics

were used to synthesise, describe and summarise data (Brink et al., 2017). Descriptive statistics facilitate the conversion and reduction of a substantial quantity of data into an organised whole and enable the researcher to describe precisely what the data demonstrates (Polit & Beck, 2017).

Descriptive statistics were utilised to describe the categorical demographic data. Numerical values were assigned to the Likert scales: *Confidence in managing multiple patients in the maternity unit* (1 = not confident, 2 = minimally confident, 3 = unsure, 4 = confident, 5 = very confident) and *Confidence/comfort in key practice skills performance* (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree).

Frequencies were utilised for the description of respondents, with Chi-square analysis set for significance at p = .05. This analysis was further used to check for association among the groups and the applicable parametric (independent sample T-test) for continuous variables. Descriptive statistics for individual statements for Professional Practice, Ethical Consideration and Systems of Care were computed. The confidence interval (CI), mean and standard deviation (SD) were computed with Chi-square analysis and with p-value set at .05 for significance. Chi-square analysis, independent sample T-tests, mean and standard deviation were utilised to check for associations in the levels of confidence for multiple patient care among the nursing students enrolled for the different programme types, and the comfort/confidence subscales (Professional Identity, Ethical Consideration and Systems of Care).



### 3.9 Ethical considerations

#### 3.9.1 Permission to conduct study

Ethics clearance was granted by the Humanities and Social Sciences Research Ethics Committee (HSSREC/ref: HS19/6/30), approval period 13 August 2019 to 13 August 2020. Permission to conduct the study was granted by the university Registrar (ref: UWCRP150819TNR) and the Head

of the School of Nursing of the university of interest. The main principles, as emphasised by the Nuremberg Code, Declaration of Helsinki and World Health Organisation, were respected at all times. These are respect for persons, justice, beneficence and non-maleficence (Brink et al., 2017; World Medical Association, 2013).

**Principle of respect for persons:** The respondents are autonomous and have the right to self-determination. Informed consent was obtained from all the respondents. The researcher explained the purpose of the study to all potential respondents and an information letter was distributed to all respondents explaining the aim of the study. Voluntary participation was requested and there was no intimidation or coercion (Brink et al., 2017; World Medical Association, 2013).

**Principle of justice:** Personal information was not required from respondents. To ensure anonymity and confidentiality, the questionnaires was assigned a number/code after collection. All data was stored in a password-protected external hard drive and, together with hard copies, locked in a cabinet with limited access (Brink et al., 2017). The data will be stored for a period of five years after which all data will be destroyed by shredding the hard copies and deleting all the electronic data.



**Principle of beneficence and non-maleficence:** When working with students, one has to ensure that the students are not coerced. Every effort was made to minimise power differentials. Respondents were informed that there was no direct benefit to participation. However, it is possible that the findings of the study might be useful for curriculum development and improve student support. No negative consequences for withdrawal or non-participation. A non-threatening environment was provided for data collection through mutual respect between the respondents and the researcher (Brink et al., 2017; World Medical Association, 2013). Although there was minimal risk, the respondents were informed that should any of them experience any distress as a result of participation, the researcher would arrange a debriefing session with a counsellor.

**Dissemination of results:** Participants were informed that they will be provided with a copy of the final report upon request.

### 3.10 Summary

In this chapter, the researcher described the research approach, study design, setting, population, sampling, data collection process, data collection instrument, instrument validity, reliability and pre-test, data analysis and ethical considerations. The next chapter presents the results of the study.

# CHAPTER 4

# RESULTS

## 4.1 Introduction

The results of the study are presented in this chapter. The study aimed to investigate the perception of self-preparedness for midwifery practice of nursing students at a university in the Western Cape, South Africa.

The objectives of the study were to:

4.1.1 Identify midwifery skills final-year nursing students found challenging to perform independently

4.1.2 Determine the level of confidence of final-year nursing students for managing multiple patients in the maternity unit

4.1.3 Determine the level of comfort/confidence of final-year nursing students in key practice skills performance

4.1.4 Collect baseline evidence of nursing students' perceptions of preparedness to inform the higher education institution of gaps and needs identified by nursing students



The demographic information is presented, followed by the results for each of the objectives. Responses to the open-ended questions that describe the gaps and needs as identified by the nursing students are presented separately.

## 4.2 Response rate

There were 38 males and 179 females in the final-year group. Population groups represented in the study population were: African – 146, Coloured – 58, White – eight, Indian – three and Asian – two. An all-inclusive sampling strategy was employed. At the time of the survey, 158 nursing

students attended the lecture session, excluding the six nursing students that had participated in the pre-test study. One hundred and twelve (112) completed surveys were returned, yielding a response rate of 71%. All questionnaires submitted were utilised as no missing information was noted.

### 4.3 Demographic information

Of the 112 respondents, the majority were enrolled for the mainstream programme, and the majority in both the mainstream and foundation programmes were females. The age range of the respondents was between 20 and 43 years, with a mean age of 23 years. In both the mainstream and foundation programmes, the highest number of students was in the age group 19–24 years.

Most of the respondents in both the mainstream and foundation programmes classified themselves as African, the rest of the respondents self-classified as Coloured, Indian and Other. The respondents who selected “other” indicated on that option that they were Asian. The option for “other” on ethnicity was therefore recoded as Asian.

The majority of the respondents held South African citizenship. In both programmes, a small minority were foreign nationals with student visas. Study bursary loans for most of the South African students in both programmes were obtained through the NSFAS. Other students were self-funded or were in receipt of other bursaries.

**Table 4: Demographic profile of respondents**

| Demographics | Total (N=112) | Mainstream programme (N=88) | Foundation programme (N=24) |
|---|---|---|---|
| Gender | | | |
| Female | 91 (81.3%) | 70 (79.5%) | 21 (87.5%) |
| Male | 21 (18.8%) | 18 (20.5%) | 3 (12.5%) |
| Age group | | | |
| 19–24 | 89 (79.5%) | 69 (78.4%) | 20 (83.3%) |
| 25–29 | 13 (11.6%) | 10 (11.4%) | 3 (12.5%) |
| ≥ 30 | 10 (8.9%) | 9 (10.2%) | 1 (4.2%) |
| Ethnicity | | | |
| African | 93 (83%) | 70 (79.5%) | 23 (95.8%) |
| Coloured | 15 (13.4%) | 14 (16%) | 1 (4.2%) |
| Indian | 3 (2.7%) | 3 (3.4%) | 0 |
| Asian | 1 (0.9%) | 1 (1.1%) | 0 |
| Citizenship | | | |
| RSA | 103 (92%) | 80 (91%) | 23 (95.8%) |
| Non-RSA | 9 (8%) | 8 (9%) | 1 (4.2%) |
| Type of funding | | | |
| NSFAS | 61 (54.5%) | 45 (51.1%) | 16 (66.7%) |
| Bursary | 29 (25.9%) | 26 (29.6%) | 3 (12.5%) |
| Self-funded | 22 (19.6%) | 17 (19.3%) | 5 (20.8%) |

The respondents were exposed to various midwifery clinical areas on a rotational basis for midwifery placement as a requirement for their training. The majority of the respondents had a clinical placement rotation primarily in maternity obstetric units (MOUs). Less than half of the respondents had a clinical placement rotation at a district/level-one hospital. Some of the respondents had a clinical placement rotation at a secondary/level-two hospital and fewer respondents reported a clinical placement rotation at a tertiary/level-three hospital (Figure 1). The placement of nursing students is standardised for the midwifery module and is not influenced by the type of programme in which the nursing student is registered.

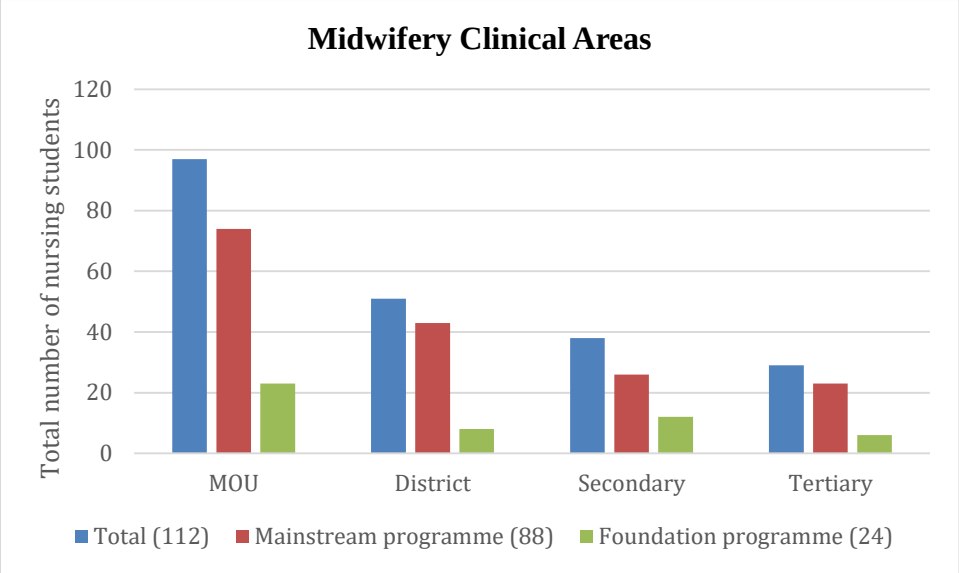


**Figure 1: Midwifery clinical placement**

The midwifery experience as reported by the respondents is presented in Table 5. The majority of the respondents worked an average of between 700 and 999 hours in their third year. Fewer than 5% of respondents worked 699 hours or less. Most of the respondents worked an average of 39 hours or less per week during the clinical rotations.

Most respondents reported obtaining a final examination mark for midwifery of between 65% and 74%. Worthy of note is that 23 (20.5%) respondents obtained 75% or above. With respect to contact with clinical mentors, most respondents had approximately five hours' contact per week. Preceptors were reported to spend less than two hours per week with the majority of respondents.

**Table 5: Midwifery experience**

| Variables | Total (N=112) | Mainstream programme (N=88) | Foundation programme (N=24) |
|---|---|---|---|
| Average third-year hours | | | |
| ≤ 699 | 5 (4.5%) | 3 (3.4%) | 2 (8.3%) |
| 700–999 | 75 (67%) | 62 (70.5%) | 13 (54.2%) |
| ≥ 1 000 | 32 (28.6%) | 23 (26.1%) | 9 (37.5%) |
| Average hours worked per week | | | |
| ≤ 39 | 63 (56.3%) | 50 (56.8%) | 13 (54.2%) |
| ≥ 40 | 49 (43.8%) | 38 (43.2%) | 11 (45.8%) |
| Average final exam mark (%) | | | |
| ≤ 64 | 22 (19.6%) | 18 (20.5%) | 4 (16.7%) |
| 65–74 | 67 (59.8%) | 51 (58%) | 16 (66.6%) |
| ≥ 75 | 23 (20.5%) | 19 (21.5%) | 4 (16.7%) |

| Variables | Total (N=112) | Mainstream programme (N=88) | Foundation programme (N=24) |
|---|---|---|---|
| Mentor time/week (hours) | | | |
| ≤ 5 | 71 (63.4%) | 55 (62.5%) | 16 (66.6%) |
| 6–9 | 26 (23.2%) | 22 (25%) | 4 (16.7%) |
| ≥ 10 | 15 (13.4%) | 11 (12.5%) | 4 (16.7%) |
| Preceptor time/week (hours) | | | |
| ≤ 2 | 91 (81.3%) | 72 (82%) | 19 (79.2%) |
| 3–4 | 19 (17%) | 15 (17%) | 4 (16.7%) |
| ≥ 5 | 2 (1.8%) | 1 (1%) | 1 (4.1%) |

Respondents reported on various methods undertaken to prepare for midwifery placement. The majority of the respondents reported having practised clinical skills in the skills laboratory. Less than half of the respondents reported having been orientated to the clinical facility and the ward on arrival at the placement area. A small number of respondents had participated in case study assignments to gain insight into their clinical role and function. Few respondents (8%) had discussed personal learning need with their mentors or unit nursing managers, and only 2% reported having developed a care plan for a maternity patient. Less than 10% of respondents reported setting daily goals with the preceptor with only a few of the respondents reporting having done nothing to prepare for the clinical placement (Figure 2).

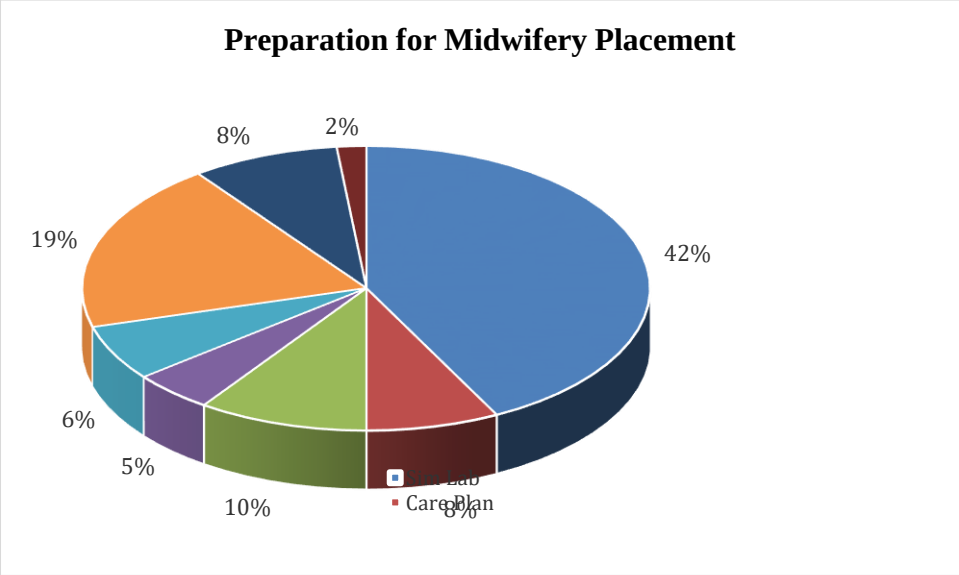


**Figure 2: Preparation for midwifery placement**

### 4.4 Self-perceived preparedness for midwifery practice reliability

Self-perceived preparedness for midwifery practice was measured using the Casey-Fink Readiness for Practice Survey structured questionnaire which comprised three subscales: professional identity (seven questions), ethical practice (nine questions) and systems of care (four questions). In the current study, an indication of good internal consistency was noted with Cronbach's alpha $\alpha = .857$ for all scale items. However, the subscales showed low to moderate Cronbach's alpha: professional identity $\alpha = .668$, ethical practice $\alpha = .760$ and systems of care $\alpha = .622$.

### 4.5 Midwifery skills which final-year nursing students found challenging to perform independently (Objective 1)

Objective 1: Identify midwifery skills final-year nursing students found challenging to perform independently

In this section, respondents were asked to select, from a list of 19 midwifery skills, skills which they found challenging to perform independently. The midwifery skills listed were performing abdominal examination and symphysis fundal height (SFH) measurement, interpretation of foetal movements chart, plotting and interpretation of gravidogram, discussion of birth plan with the pregnant woman, interpretation of booking bloods, initial assessment of labour, performing pelvic assessment (PA) and vaginal examination (VE), plotting and interpretation of the partogram, conducting a normal vaginal delivery (NVD), management of third and fourth stages of labour, suturing of an episiotomy or first-degree and second-degree tears, initiating skin-to-skin care, diagnosis and immediate management of postpartum haemorrhage (PPH), management of post-NVD mother, management of post caesarean section mother, rendering postpartum family planning and counselling, performing initial assessment of the neonate (including Apgar score), performing neonatal resuscitation, and administration of birth immunisations. There was also an

option to add a skill not listed. Skills not listed but reported by the respondents were: taking a Pap smear, conducting and teaching breast examination, performing infiltration of the perineum, and conducting a vaginal delivery for abnormal presentations (for example, breech or occiputo-posterior position, cord prolapse and twin pregnancy).

Only one respondent (0.9%) enrolled for the mainstream programme reported being comfortable performing all midwifery skills independently. The majority of the respondents identified eight midwifery skills as the most challenging to perform independently (Table 6). The skills were not ranked in order of difficulty, only the total number of responses were calculated; therefore, this does not indicate which skill is the least or most challenging to perform independently for the respondents. It is important to note that in both groups, the majority of respondents reported the suturing of an episiotomy or first-degree and second-degree tears, performing a pelvic assessment and vaginal examination and performing neonatal resuscitation as skills most challenging to independently perform.

**Table 6: Midwifery skills challenging to perform independently**

| Skills/procedures | Total (N=111) N (%) | Foundation (N=24) N (%) | Mainstream (N=87) N (%) |
|---|---|---|---|
| Suture episiotomy/first-degree & second-degree tear | 89 (79) | 22 (92) | 67 (76) |
| Pelvic assessment & vaginal examination | 72 (64) | 20 (83) | 52 (59) |
| Perform neonatal resuscitation | 65 (58) | 11 (46) | 54 (61) |
| Other (e.g. breech/twin delivery, breast examination etc.) | 34 (30) | 6 (25) | 28 (32) |
| Management of postpartum haemorrhage | 22 (20) | 4 (17) | 18 (20) |
| Conducting NVD | 15 (13) | 4 (17) | 11 (13) |
| Management of third & fourth stage of labour | 9 (8) | 0 | 9 (10) |
| Abdominal examination & SFH measurement | 7 (6) | 4 (17) | 3 (3) |

### 4.6 Reported confidence in managing multiple patients in the maternity unit (Objective 2)

Objective 2: Determine the level of confidence of final-year nursing students for managing multiple patients in the maternity unit

Respondents were asked about their level of confidence in independently managing patients in the maternity unit (Figure 6). The five Likert scale categories were (1 = not confident, 2 = minimally confident, 3 = unsure, 4 = confident and 5 = very confident). Although most of the respondents felt very confident managing two patients in the maternity unit, less than half of the respondents felt very confident managing three patients. A gradual decline in confidence was noted as the number of patients for whom they were responsible increased, and most respondents reported decreased levels of confidence when managing four patients in the maternity unit. A moderate difference was noted in reported confidence between managing three patients compared to managing two patients. It is evident that nursing students' reported increased confidence is associated with the management of fewer patients.

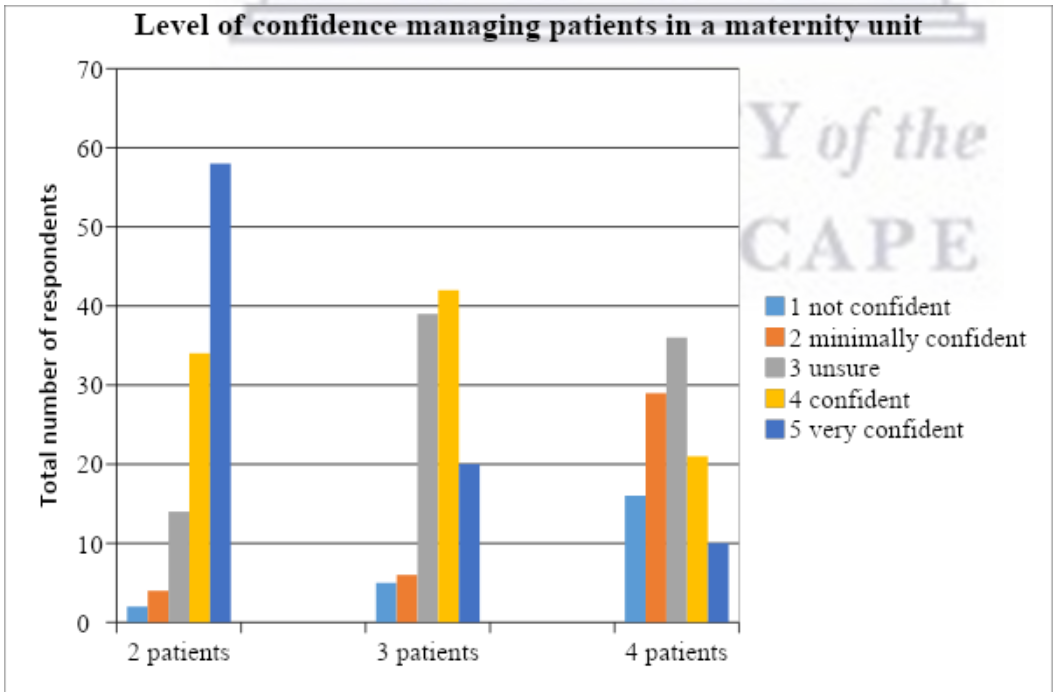


**Figure 3: Level of confidence independently managing patients in a maternity unit**

There was no significant difference between the two groups in managing two, three or four patients. The majority of respondents enrolled for the mainstream programme were neutral about their level of confidence in managing four patients; however, both groups reported decreased levels of confidence as they had to care for an increasing number of patients (Table 7).

**Table 7: Confidence managing multiple patients independently**

| Variables | Total (N=112) | Mainstream programme (n=88) | Foundation programme (n=24) | Test | p-value |
|---|---|---|---|---|---|
| **Manage 2 patients** | | | | $X^2$= 2.917 | .572 |
| Not confident | 2 (1.8%) | 2 (2.3%) | 0 | | |
| Minimally confident | 3 (2.7%) | 2 (2.3%) | 1 (4.2%) | | |
| Neutral | 14 (12.5%) | 9 (10.2%) | 5 (20.8%) | | |
| Confident | 32 (28.6%) | 25 (28.4%) | 7 (29.2%) | | |
| Very confident | 61 (54.4%) | 50 (56.8%) | 11 (45.8%) | | |
| **Manage 3 patients** | | | | $X^2$= 3.238 | .519 |
| Not confident | 5 (4.5%) | 4 (4.5%) | 1 (4.2%) | | |
| Minimally confident | 6 (5.3%) | 4 (4.5%) | 2 (8.3%) | | |
| Neutral | 38 (34%) | 27 (30.7%) | 11 (45.8%) | | |
| Confident | 43 (38.4%) | 37 (42.1%) | 6 (25%) | | |
| Very confident | 20 (17.8%) | 16 (18.2%) | 4 (16.7%) | | |
| **Manage 4 patients** | | | | $X^2$= 6.827 | .145 |
| Not confident | 16 (14.3%) | 12 (13.6%) | 4 (16.7%) | | |
| Minimally confident | 28 (25%) | 20 (22.7%) | 8 (33.3%) | | |
| Neutral | 36 (32.1%) | 29 (32.9%) | 7 (29.1%) | | |
| Confident | 22 (19.6%) | 21 (24%) | 1 (4.2%) | | |
| Very confident | 10 (9%) | 6 (6.8%) | 4 (16.7%) | | |

Chi-square tests. *Significant at $p < .05$



Spearman's rho showed statistically significant positive relationships between the level of confidence managing two patients and level of confidence managing three patients ($rs = .657$, $p < .000$) and managing four patients in the maternity unit ($rs = .745$, $p < .000$). The results of the one-way ANOVA test (significant at $p < .05$) indicate that 51.3% ($p = .000$) of the variance in the level of confidence managing three patients in the maternity unit is explained by the level of confidence in managing two patients in the maternity unit. Also, 20.7% ($p = .000$) of the variance in the level of confidence in managing four patients in the maternity unit is explained by the level of confidence managing two patients in the maternity unit. A Kruskal-Wallis test showed no significant relationship between respondent age and confidence managing two patients

($X^2 = 2.105$, $p = .349$), confidence managing three patients ($X^2 = .902$, $p = .637$) and confidence managing four patients ($X^2 = 2.203$, $p = .332$) in the maternity unit.

### 4.7 Reported level of comfort/confidence in key practice skills performance (Objective 3)

Objective 3: Determine the level of comfort/confidence of final-year nursing students in key practice skills performance

The comfort/confidence questions were classified into three subscales: professional identity (comprising seven questions), ethical practice (nine questions) and systems of care (four questions).

#### 4.7.1 Professional identity

Respondents felt confident communicating with doctors and in their ability to solve problems (Table 8). Respondents reported having received less feedback than they had expected from their mentors/clinical instructors regarding their readiness to assume the registered midwife role. Respondents reported having had opportunities to practise skills and procedures and they felt simulations helped prepare them for clinical practice. Respondents felt fairly satisfied with choosing nursing as a career and reported a low level of readiness with assuming the midwife role.

**Table 8: Professional identity**

| Scale item | Mean | Standard deviation | Range |
|---|---|---|---|
| I feel confident communicating with doctors | 3.12 | .737 | 3 |
| My clinical instructor/mentor provided feedback about my readiness | 2.78 | .824 | 3 |
| I am confident in my ability to problem solve | 3.05 | .567 | 2 |

| | | | |
|---|---|---|---|
| I have had opportunities to practice skills and procedures | 3.36 | .642 | 3 |
| Simulations have helped me feel prepared for clinical practice | 3.16 | .681 | 3 |
| I am satisfied with choosing nursing as a career | 3.00 | .959 | 3 |
| I feel ready for the professional midwife role | 2.63 | .986 | 3 |

### 4.7.2 Ethical practice

Communicating with patients from diverse populations was a skill most respondents were comfortable performing (Table 9), and they reported a low level of confidence dealing with ethical issues in their patient care responsibilities. Respondents reported not being comfortable with delegating tasks to the nursing assistant. They agreed that they used current evidence to make clinical decisions and they were comfortable communicating and coordinating care with the multidisciplinary team members. Respondents reported that writing reflective journals did not provide insights into their clinical decision-making skills and reported feeling comfortable knowing what to do for a dying patient. Respondents felt comfortable in taking action to solve problems and felt confident identifying actual and potential safety risk to their patients.

**Table 9: Ethical practice**

| Scale item | Mean | Standard deviation | Range |
|---|---|---|---|
| I am comfortable communicating with patients from diverse populations | 3.51 | .569 | 3 |
| I am comfortable delegating tasks to the nursing assistant | 2.57 | .791 | 3 |
| I feel confident dealing with ethical issues in my patient care responsibilities | 2.98 | .684 | 3 |
| I use current evidence to make clinical decisions | 3.12 | .681 | 3 |
| I am comfortable communicating and coordinating care | 3.15 | .660 | 3 |

| Scale item | Mean | Standard deviation | Range |
|---|---|---|---|
| Writing reflective journals/logs provided insights into my own clinical decision-making skills | 2.64 | .769 | 3 |
| I feel comfortable knowing what to do for a dying patient | 2.64 | .815 | 3 |
| I am comfortable taking action to solve problems | 3.01 | .577 | 3 |
| I feel confident identifying actual or potential safety risks | 3.16 | .578 | 3 |

### 4.7.3 Systems of care

There was a high level of confidence in documenting care in the patient care plan and progress notes. Respondents also felt able to prioritise patient care, recognise a significant change in their patient's condition and request assistance (Table 10).

**Table 10: Systems of care**

| Scale item | Mean | Standard deviation | Range |
|---|---|---|---|
| I am comfortable documenting care in the care plan and progress notes | 3.21 | .587 | 2 |
| I feel comfortable prioritising patient care needs | 3.43 | .667 | 3 |
| I am confident in my ability to recognise a significant change in my patient's condition | 3.17 | .500 | 2 |
| I am comfortable asking for help | 3.54 | .583 | 3 |

## 4.8 Responses to open-ended questions: reported gaps and needs identified (Objective 4)

Objective 4: Collect baseline evidence of nursing students' perceptions of preparedness to inform the higher education institution of gaps and needs identified by nursing students

Respondents were asked two open-ended questions regarding their choice of nursing as a career and what could be done to help them prepare to enter the midwifery profession. The responses

were analysed using simple content analysis by categorising the responses (O'Cathain & Thomas, 2004).

### 4.8.1 Choosing nursing as a career

Respondents were asked to share their reasons for choosing nursing as a career. The responses were categorised into themes: humanity, alternative choice, and job security (Table 11).

**Table 11: Choosing nursing as a career**

| Theme | Number of responses | Percentage (%) |
|---|---|---|
| Humanity | 80 | 71.4 |
| Alternative career choice | 22 | 19.6 |
| Job security | 10 | 9 |

#### 4.8.1.1 Humanity

The majority of the respondents commented on aspects of the human response. Most reflected on their dream of becoming a nurse and the passion to care for those in need or unable to care for themselves: *"[I] have a passion to help people and look after the sick." (R3) "It was my passion and calling." (R59).* Some of the respondents mentioned the need to make a difference in peoples' lives – *"I have a great desire to help those in need and to help uplift the community I am from." (R21)* – and uplift their communities: *"I always wanted to do [have] a career that will allow me to give back to [the] community…" (R12).*

A few mentioned the need to change – *"… changing our current healthcare system." (R79)* – and correct the inequalities of the South African healthcare system – *"Change the inequalities in health[care] experienced by the majority in our country." (R68).* For some respondents, it was their interest in the sciences subjects (Life Science, Mathematics, and Physical Science) that influenced their career choice: "*Because it had Biology, Physics…" (R1).*

#### 4.8.1.2 Alternative career choice

Nursing was an alternative career choice for a relatively small number of respondents (19.6%). Most had followed a tradition of having nurses in the family – "*Parents [are] both professional nurses."* (R35) – while for some, their families had made the selection for them: *"My grandfather usually called me nurse…"* (R87). These respondents reported that nursing was a second choice – *"It was my second choice …"* (R40) and "*I did not get accepted for medicine."* (R11) – as they had not been accepted into their first programme choice at the university. Obtaining a tertiary level qualification was also important, as was being pressed for time to select a career, as indicated in the following responses: *"Just to have a degree."* (R63) and *"I did not know what to do with my life and I was running out of time."* (R31).

#### 4.8.1.3 Job security

Nursing was also regarded as a profession with guaranteed employment opportunities as indicated by the following responses: *"… it [nursing] has job opportunities…"* (R15) and *"You never go hungry. Lot[s] of job opportunities."* (R39). Respondents also perceived nursing as a profession that offers the opportunity to travel, given the worldwide need for nurses, as indicated by this comment: "*Because it [nursing] is one of the most needed careers in the world and the world will always be in need of nurses. I also get to travel the world."* (R108). Opportunities for further study – *"… I can also study further."* (R20) – and career advancement – *"I can be a[n] advanced midwife."* (R110) – were also cited as reasons for the choice of nursing.

### 4.8.2 Preparation to enter the midwifery profession

Respondents were asked the question "What could be done to help you feel more prepared to enter the Midwifery profession?" Six themes emerged from the responses: clinical placement, module structure, attitudes of midwives, lack of interest and self-preparation (Table 12).

**Table 12: Preparation to enter the midwifery profession**

| Themes | Number of responses | Percentage (%) |
|---|---|---|
| Clinical placement | 47 | 42 |
| Module structure | 32 | 28.6 |
| Attitudes of midwives | 17 | 15.1 |
| Lack of interest | 9 | 8 |
| Self-preparation | 7 | 6.3 |

#### 4.8.2.1 Clinical placement

The majority of the respondents perceived the need for more clinical hours – *"Had more time in the clinical setting."* (R16) – and longer periods in placements – *"I would like more time in placement."* (R110) – as critical for midwifery experience. These respondents reported being familiar with the clinical placement areas ahead of practical placement, as necessary: "*Orientation prior commencement of [clinical] placement."* (R40). They also reported a need for dedicated – *"… having actual mentors to aid in preparation of midwifery."* (R79) – and "hands-on" mentors who could conduct guided practice at the bedside: *"… show us how to deliver a baby instead of just telling us through theory."* (R73). Some respondents indicated a need for more teaching time with the clinical supervisor – *"We could have had more time with supervisors."* (R75) – and clarification of learning objectives required according to the type of clinical placement: *"For more sessions with the clinical supervisor and break down of competencies per health care level."* (R1).

Respondents reported on the need for a comprehensive student training plan – *"Have an actual plan for nursing student[s] at facilities…."* (R79) – at the clinical placement areas, while others noted the need for ward preceptors – *"If we could actually have mentors in the ward who focus specifically on students because sometimes midwives are busy living [leaving] no room for teaching and learning."* (R91) – as necessary to promote clinical teaching. For some respondents, a midwifery placement in their final year – "… *a midwifery placement one month before graduation."* (R108) – could have helped in preparation to enter the midwifery profession. A refresher course before completion of the programme was another possibility: *"... a refresher course of maybe a week could be given in the 4th year."* (R21). Others noted a need for a short course to bridge the identified gaps: *"... a[n] intermediate short course before community service to refresh what has been done."* (R20).

#### 4.8.2.2 Module structure

The respondents referred to the change in the module structure as essential for preparation to enter the midwifery profession. The six months allocated for the module were considered as brief – *"Midwifery… right now it's six months and it's too short."* (R98) – such that they did not afford sufficient time to apply theory to practice – *"... you can't apply all you learn in class in six months."* (R90). Some respondents mentioned that they found being placed in clinical areas prior to any theoretical input challenging: *"Sometimes you go to [the] ward before the class and [it becomes] confusing*." (R103). Respondents also indicated the need for more theoretical preparation: *"More time in class before hospitals."* (R89). This, they felt, would have enabled them to engage more with the information in class – *"I can be prepared more in theory to help in practical challenges at the clinic."* (R47) – to better deal with challenges encountered in clinical placement areas.

In order to prepare them better, respondents suggested the module be structured over at least a year, which could afford them more time to engage with the theory and apply it more efficiently at the clinical placement areas: *"The nursing programme needs to be changed to ensure that students do midwifery for an entire year and not half a semester…."* (R109). An opportunity to do more individual simulation skills practice – "*More hours in the skills lab to give more time for self-practice."* (R18) – was identified as an area for improvement, while some respondents perceived the use of simulated patients as helpful: *"Practice more on simulated patients."* (R71).

#### 4.8.2.3 Attitudes of midwives

The respondents reported finding the negative attitudes they experienced from midwives challenging as it hindered the achievement of the clinical learning objectives, as indicated by this comment: *"The attitude of some midwives towards students not good and welcoming…you can't even learn anything."* (R34). Respondents also reported the need to be respected and acknowledged by the midwives: *"Staff in the ward must acknowledge and respect students more."* (R104). Poor communication – *"Patience. Registered nurse [midwife] must be friendly…."* (R80) – and lack of staff friendliness – *"Facilities that we [nursing students] are placed at should teach staff to be more student friendly and talk nicely…"* (R106) – were identified as contributory factors to the respondents' sense of under-preparedness to enter the midwifery profession.

Some respondents mentioned the need for the delegation of appropriate tasks as per-year-level objectives: *"…the staff must know that you need certain competencies as a student at different year levels and STOP letting students do enrolled nursing assistant work, especially in third- or fourth-year level."* (R104). Inclusion in patient care planning was reported as helpful in preparing them to enter the midwifery profession: *"Inclusion in caring for [the] patient instead of thinking [nursing] students don't know anything."* (R44). Respondents voiced the need to be "trusted" by

midwives: *"Being allow[ed] to do more procedure[s] independently."* (R43). The need to be allowed to independently conduct certain procedures under the supervision of midwives was also noted: *"Midwives to have passion to guide us … not judging us the [that] we don't know anything."* (R3).

Several respondents reported that midwives' lack of willingness to teach was challenging – "*Facilities that we are placed at should… [be] willing to teach."* (R106) – while others perceived the lack of support as a contributory factor to not being prepared to enter the midwifery profession, as evidenced by the following quote: *"… when you ask for guidance, they [midwives] mock you for not knowing or [label you as a] poor performer."* (R99). The shortage of staff at some facilities was noted to negatively impact on student learning: *"Students should be treated as learners and their learning opportunities and competencies to all professional nurses should be first priority."* (R49). These staffing challenges hindered the nursing students from achieving some of their learning objectives. Also, the respondents perceived the need for staff wellbeing as necessary: *"[Midwives] should be monitored for burnout."* (R49).



#### 4.8.2.4 Lack of interest

Midwifery is a core component of the four-year preregistration nursing programme; thus, all students are required to achieve competency in this field, regardless of personal interest. However, some respondents indicated a lack of interest in midwifery as a career path, as seen in the following responses: "*Midwifery has never been my favourite."* (R65) and "*Not to ever work in midwifery"* (R58). Three of the nursing students mentioned the need to be remunerated for the period spent in the clinical areas: *"Being compensated for the hours that we work."* (R61).

#### 4.8.2.5 Self-preparation

Some of the respondents reported on the need for individuals to personally prepare themselves for the profession: *"I think it's more of a personal thing where you've [you have] to mentally prepare yourself…."* (R107). Others perceived midwifery as a dynamic field: *"Nothing because I feel like in Midwifery you deal with new cases every day."* (R56). A few of the respondents reported on the need to be placed in unfamiliar midwifery areas to practise and to help them feel prepared for the midwife role, exemplified in the following response: *"Being placed in areas where I don't feel comfortable to get used to it."* (R4).

### 4.9 Summary

This chapter elaborated on the results of the study. Nursing students identified eight midwifery skills as challenging to perform independently. As the number of patients cared for increased in the maternity unit, the level of confidence decreased. There was no statistical significance in the difference in level of confidence for the management of multiple patients between nursing students enrolled for the mainstream and foundation programmes. Nursing students also reported low levels of confidence in dealing with ethical issues in their patient care responsibilities, delegating duties to nursing assistants and assuming the midwife role. The next chapter presents a discussion of the results.

# CHAPTER 5

# DISCUSSION OF RESULTS

## 5.1 Introduction

This chapter presents the discussion of results. The aim of the study was to investigate the perception of self-preparedness for midwifery practice of nursing students at a university in the Western Cape, South Africa. The objectives of the study were:

1. To identify midwifery skills final-year nursing students found challenging to perform independently
2. To determine the level of confidence of final-year nursing students for managing multiple patients in the maternity unit
3. To determine the level of comfort/confidence of final-year nursing students in key practice skills performance
4. To collect baseline evidence of nursing students' perceptions of preparedness to inform the higher education institution of gaps and needs identified by nursing students



## 5.2 Demographics

The majority of the respondents classified themselves as African and reported being funded by the NSFAS. The structural inequalities of South Africa have made such funding critical for access to higher education for those from disadvantaged population groups (De Villiers, 2012). The recent DHET Bursary Scheme provides financial support for students from poor and working-class backgrounds who meet specific academic criteria (Department of Higher Education and Training, 2020).

### 5.3 Midwifery skills reported as challenging

The results of the study suggest that nursing students had difficulty in independently performing basic midwifery skills, which are essential to be able to register with the profession's regulating body as a midwife (ICM, 2010; World Health Organization, 2011b; SANC, 1985). In the current study, the nursing students had successfully completed the midwifery module and had been found competent in all basic midwifery skills, yet most reported that they felt insufficiently prepared to enter practice as an as independent midwife. Chandekar (2012), reporting on the preparedness of prospective nurses to work as midwives in hospitals and communities in India, found similar concerns. The skills the nursing students found most challenging to perform independently were abdominal palpation, conducting normal deliveries, resuscitating a newborn, performing an episiotomy or providing episiotomy care, and handling obstetric emergencies (Chandekar, 2012).

In a descriptive, cross-sectional study, Malakooti et al. (2017) reported that nursing students scored low marks during the midwifery clinical skills assessment using an objective structured clinical examination (OSCE). They found that nursing students experienced challenges with basic skills such as abdominal palpation, physical examination, pelvic examination, cardiotocograph interpretation, foetal resuscitation and answering midwifery-related clinical questions. These findings are confirmed in the current study.

In Iran, Mirzakhani and Shorab (2015) reported that midwifery graduates from Mashhad College of Nursing and Midwifery reported a lack of confidence in their clinical skills, especially those skills that were regarded as high risk such as performing a pelvic examination and diagnosing problems in neonates. Although the aforementioned skills are essential requirements in South Africa, the nursing students in the current study reported difficulty in independently performing them. Mirzakhani and Shorab (2015) further reported high levels of confidence in performing skills that were regarded as low risk such as breast examination, abdominal examination and interpretation of routine tests during pregnancy. In a study conducted in the Netherlands to explore

newly qualified midwives' perceptions of job demands, Kool et al. (2020) found that the newly qualified midwives reported having no training or experience in some midwifery skills, namely, inserting a Foley catheter, foetal monitoring using a cardiotocograph and suturing episiotomies. These findings are similar to the current study, in which the nursing students reported experiencing difficulty suturing episiotomies independently.

Yigzaw et al. (2015) reported that students' summative OSCE scores were highest for nursing stations in which management of the third stage of labour, assisting normal delivery and postpartum counselling were assessed. This differs from the present study where the management of the third stage of labour and assisting normal delivery were listed among the top eight skills nursing students found challenging to perform independently. Yigzaw et al. (2015) further reported that assisted deliveries scored the lowest, which was similar to the findings of the current study in which nursing students reported difficulty in conducting normal vaginal deliveries for abnormal presentations.

Lack of confidence of the soon-to-be or newly qualified graduate has been reported in a number of studies. According to Benner (1982), the novice nurse has no experience in real-life situations but has knowledge of performing certain tasks using standardised rules to guide performance and action to be taken. Skirton et al. (2012) found that newly qualified midwives in the UK reported a lack of confidence performance of basic midwifery skills, associated with a lack of experience rather than a lack of knowledge. Their low confidence impacted negatively on their job performance, as they needed to think through an action prior to being able to perform the task; this made them appear slow in their actions (Skirton et al., 2012).

Benner (1982) notes that with more exposure to real-life situations, the novice nurse becomes an advanced beginner with the ability to identify aspects of action required to be taken but would need support and assistance in prioritising aspects of patient care. Nursing students practice at *advanced beginner* level as they were exposed to the different situations and skills during training

but need guidance and support from the mentors and to use guidelines to improve their knowledge and skills (Murray et al., 2019).

The lack of confidence in basic midwifery skills performance indicated by nursing students in the present study raised concern, as there is a need for skilled birth attendants to improve the country's maternal, neonatal, child and women's health services (National Committee for Confidential Enquiry into Maternal Deaths, 2018). As noted, the ability to identify and target the contributory causes of maternal and neonatal deaths would aid in the achievement of the SDG target to reduce maternal and perinatal deaths in developing countries by the year 2030 (Geleto et al., 2020). In South Africa, the lack of appropriately trained birth attendants has had a direct negative impact on the outcomes of the birthing experience for some women (National Committee for Confidential Enquiry into Maternal Deaths, 2013). This finding is similar to that of Geleto et al. (2020), who reported that some maternal near miss incidents were due to a lack of trained healthcare workforce and the shortage of staff due to poor staff retention mechanisms. Findings of research conducted to determine the level of confidence for midwifery clinical skills performance by nursing students seem to yield results similar to the current study (viz. low levels of confidence in basic midwifery skills performance), though nursing students were found competent to progress in the programme (Mirzakhani & Shorab, 2015; Licqurish & Seibold, 2013).

Sharma et al. (2015) reported findings similar to the current study with nursing students expressing low confidence levels in performing physical examinations, per vaginal examinations and management of the third stage of labour, with a markedly high percentage (63%) expressing low confidence in performing infiltration of the perineum with local anaesthetic, performing an episiotomy, perineal trauma repair and managing postpartum haemorrhage. Ntlokonkulu et al. (2018) conducted a study in South Africa exploring lived experiences of student midwives regarding confidence and satisfaction in medium-fidelity simulation. They reported on the increased levels of student midwives transferring the learned skills to real-life situations. Student

midwives reported improved knowledge and skills in the management of postpartum haemorrhage and shoulder dystocia (Ntlokonkulu et al., 2018), which are findings that differ from those of the current study.

In Italy, De Bernardo et al. (2016) conducted a study to assess the performance of low-level hospital healthcare workers who attended a neonatal resuscitation course using high fidelity simulation in a standard-setting scenario. Twenty-three qualified healthcare workers participated in the study, sixteen of whom (eight paediatricians and eight paediatric nurses) did not meet the minimal requirements to successfully complete the course (De Bernardo et al., 2016). De Bernardo et al. (2016) reported that the poor performance of the participants could be due to a lack of exposure and experience in performing neonatal resuscitation as they worked in low-risk hospitals. Nursing students in the present study are exposed to this type of training as part of their education. In a study conducted in three large hospitals in Ghana to determine midwives' level of experience in neonatal resuscitation, Alhassan et al. (2019) found that 98.1% of the participants had a low level of knowledge regarding neonatal resuscitation and 55% were not experienced in performing the procedure. The notable low level of confidence in neonatal resuscitation across studies presented is cause for great concern, as it is the most important basic skill in saving newborn lives and decreasing neonatal mortality rate (Alhassan et al., 2019).



### 5.4 Reported confidence in managing multiple patients in the maternity unit

The results of the current study suggest that as the number of patients to be managed in the maternity unit increased, there is a decrease in the level of confidence. Kool et al. (2020) similarly reported that newly qualified midwives were shocked at the high workload they had to deal with on a daily basis. Their new role required that they adopt good time management and fast decision-

making skills, which was challenging for them (Kool et al., 2020). This finding supports Benner's model of transitioning from novice to expert level of proficiency (Benner, 1982).

Further studies with similar findings include those of Skoogh et al. (2020), who reported that high workloads had negative effects on patient safety during intrapartum care in the maternity wards; Fenwick et al. (2012), who found that many newly qualified midwives were overwhelmed with the workload as they had to care for at least six mothers and their babies at a time affecting the quality of care rendered; and Davies and Coldridge (2015), who found that nursing students adopted practices that undervalued their commitment to providing woman-centred care due to the shortage of staff, overcrowding of the maternity units and hierarchical environments. A shortage of experienced nurses challenges the provision of safe and effective nursing care (Cooper et al., 2010).

The care of women in hospital-based maternity units is seen as fragmented, with managers focused on task completion rather than quality of care, impacting negatively on nursing students' practice as the care rendered is not focused on the women but on conforming to policies and what is comfortable for the staff (Davies & Coldridge, 2015). Findings by Fenwick et al. (2012) support this, as newly qualified midwives reported having experienced a more respectful and woman/family-centred approach to care with the caseload model than they had experienced in hospital-based maternity environments where they had lost all their confidence. Sidebotham and Fenwick (2019) also reported on nursing students' preference of the caseload model as it promoted one-on-one interaction with the patient therefore promoting individualised care planning that puts the needs of the patient first at all times.

Various studies conducted to investigate nursing students' readiness for practice reported on their level of confidence in managing a multiple-patient care assignment in an adult medical-surgical unit (Oblea et al., 2019; Usher et al., 2015; Woods et al., 2015; Casey et al., 2011). The majority of the nursing students reported feeling very confident managing a two-patient care assignment as

compared to managing care assignments with three or more patients (Oblea et al., 2019; Usher et al., 2015; Woods et al., 2015; Casey et al., 2011). In a study conducted in Sweden to explore newly graduated nurses' strategies for managing sleep and fatigue, Epstein et al. (2020) found that the increased number of patients and high workload worsened the sleeping pattern of the majority of the newly graduated nurses and caused them fatigue, decreasing their level of confidence in rendering care to patients.

Willman et al. (2020) conducted a study in Sweden exploring newly graduated registered nurses' (NGRNs) experiences, found that the participants reported low competence levels in caring for patients individually. The NGRNs described the experience of individually caring for patients as difficult and chaotic, which made them feel a sense of failure (Willman et al., 2020). Saber et al. (2016), in a study conducted in the USA exploring nursing students' expectations of nursing work and the workforce, found that nursing students reported high levels of anxiety in caring for patients and low levels of confidence with taking responsibility for individual patient care (Saber et al., 2016).

It is clear that there is a perceived drop in confidence as the number of patients for which a midwife cares at one time increases. At the same time, there is an ever-increasing number of women and infants who need the expertise of a midwife. Managing multiple patients in the maternity unit is an essential part of the registered midwife's role. There is a global shortage of nine million nurses and midwives, which challenges the ability of healthcare systems to improve the health outcomes of the patients (WHO, 2016). Armstrong et al. (2019) assumed that for quality care to be rendered, there must be a minimum of 4.45 nurses per 1000 population with a benchmark of 8.6 nurses per 1000 population. The results of the current study are concerning as the shortage of appropriately trained midwives available to render basic maternal care services has contributed to the slow decrease in maternal deaths (National Planning Commission, 2013). The poor delivery of essential interventions in maternal and newborn care is attributed to the shortage healthcare workers and

their lack of knowledge and skills (Murphy et al., 2019). The Department of Health is facing various challenges, namely aging nursing cadre, increased brain drain and increased nursing attrition rates that contribute to an imbalance in nurse–patient ratios. This situation that is exacerbated by the increased population, leading to increased service pressures and high demands for service delivery, in turn requiring the existing nursing cadre to be more resilient (Armstrong et al., 2019). Renfrew et al. (2014) reported that introducing well-educated, motivated and trained midwives is associated with an improved quality of care for women and newborns, and a persistent decrease in maternal and newborn mortality.

### 5.5 Reported level of comfort/confidence in key practice skills performance

The three themes that emerged from the comfort/confidence questions were professional identity, ethical practice and systems of care.

#### 5.5.1 Professional identity

In the present study, the results suggest that the nursing students did not feel ready for their new role as registered midwives after completion of their final year; however, they felt satisfied with choosing nursing as a career. Sidebotham and Fenwick (2019), in their study exploring the experiences of nursing students undertaking a clinical placement within a midwifery caseload model, reported that nursing students were optimistic about their new role as midwives as they had positive learning experiences and role models. Kaihlanen et al. (2016) found that graduating nursing students in Finland experienced feelings of stress and fear because of their lack of knowledge regarding different medical conditions, employer demands and increased responsibilities as registered nurses, leading to their feeling unprepared to practise independently. Similar findings were reported by Saber et al. (2016) in a study conducted in the USA exploring nursing students' expectations of nursing work and the workforce. The authors found that nursing

students experienced distress in role transition due to low levels of confidence in nursing skills, increased workload and interpersonal difficulties (Saber et al., 2016). In a study conducted in the UK, newly qualified nurses working in an adult intensive care unit experienced anxiety related to their inability to complete tasks timeously, which delayed the provision of routine nursing care, making them feel like they were not adding value to the team and therefore unprepared to practise independently (O'Kane, 2011).

Nursing students expressed their fear of leaving the student role as they felt it was safe, though they were optimistic about the new role and its impact in their lives as it meant they were also moving into the role of an adult promoting a more organised and responsible life (Kaihlanen et al., 2016). Newly qualified nurses experienced challenges in their new role as some staff members either still treated them as students or gave them too much responsibility, which hindered their progress (O'Kane, 2011). Chandekar (2012) reported that the majority of nursing students expressed that they required more experience in the maternity units to be able to function independently. Newly qualified midwives reported having felt more comfortable during their internship as they only had to support one delivery at a time (Kool et al., 2020).

Kool et al. (2020) found that newly qualified midwives reported low levels of confidence communicating with the supervising obstetrician, which differs from the findings of the present study. For some newly qualified midwives, the low levels of confidence were due to some obstetricians wanting the midwives to prove themselves, as they viewed them as young (Kool et al., 2020). Saber et al. (2016) found that nursing students reported being disrespected and bullied by physicians, which caused them psychological challenges. Also, senior nursing personnel disrespected, ignored and intimidated the nursing students and made them feel incompetent in their nursing work (Saber et al., 2016). Fenwick et al. (2012) found that poor communication among the healthcare workers in the maternity unit had negative effects on the care given to patients.

Nursing students reported being seen and respected by the caseload midwife, which had a positive effect on their view of midwifery as a profession (Sidebotham & Fenwick, 2019).

Kaddoura (2010) found that nursing students valued feedback as it helped develop critical thinking skills and helped them correct their own mistakes. Nursing students reported that their ability to learn was affected by disinterested preceptors, inadequate clinical time and excess paperwork (Saber et al., 2016). Earlier studies have reported that when nursing students perceived the clinical time and exposure to skills as adequate, it helped them feel better prepared for the new professional role (Usher et al., 2015; Woods et al., 2015; Casey et al., 2011). Nursing students reported feeling satisfied with the feedback they received from the ward managers and preceptors regarding their work performance as it made them feel supported (D'Souza et al., 2015). Hauck et al. (2017) found that nursing students demonstrated improvement in clinical skills and the quality of patient care they rendered when they received continuous, task-focused feedback presented in a constructive manner.

Kool et al. (2020) found that when newly qualified midwives were positively supported by midwife colleagues, obstetricians and the unit manager, they felt like part of the multidisciplinary team with opportunities for collaboration in patient care. Newly qualified midwives reported that a supervised orientation programme to help familiarise them with the different obstetric conditions would enable them to gain more confidence, independence and competence (Kool et al., 2020). When newly qualified nurses were allocated preceptors in the ICU, they felt supported and gained confidence in their skills, though they felt that, at times, preceptors could have reduced the amount of support given (O'Kane, 2011).

### 5.5.2 Ethical practice

Communication with patients and their families is essential in ensuring that patient/family-centred care is rendered. Most respondents were comfortable communicating with patients from diverse populations. This was also reported by Usher et al. (2015), Woods et al. (2015) and Casey et al. (2011). Newly qualified midwives reported they lacked skills and experience in communicating with patients and families with different cultures and socioeconomic backgrounds (Kool et al., 2020). In some instances, nursing students expressed anxiety in communicating with patients and families as they had experienced violence and abusive behaviour (Saber et al., 2016). Davies and Coldridge (2015) found that nursing students communicated well with the families, especially when counselling parents after a traumatic experience like losing a baby, though at times the midwives viewed this as a waste of time and would demand the students leave the parents and attend to other tasks.

Delegation of tasks is one of the most fundamental roles of a registered midwife to ensure that services in the maternity unit run efficiently. Nursing students in studies have reported confidence in delegating tasks to nursing assistants (Usher et al., 2015; Woods et al., 2015; Casey et al., 2011). Kool et al. (2020) found that newly qualified midwives had challenges delegating tasks to obstetric nurses. The ineffective delegation of some members of the team had negatively affected the teamwork (Kool et al., 2020; Ntlokonkulu et al., 2018). In the current study, nursing students expressed a low level of confidence delegating tasks to nursing assistants. The reasons for this are not clear; however, it is possible that factors such as age, cultural norms and language may play a role in this. This has a potential negative impact on maternity units if different categories of staff are not effectively utilised (Kool et al., 2020).

In Singapore, Goh et al. (2020) conducted a study examining the perceived level of nursing teamwork and factors influencing teamwork among enrolled nurses and registered nurses in general wards. They reported that registered nurses had difficulty delegating tasks to senior

enrolled nurses as the senior enrolled nurses viewed them as young, which led to the registered nurses completing all nursing tasks on their own (Goh et al., 2020). However, the enrolled nurses reported being overloaded by the nursing tasks delegated to them and did not feel supported by the registered nurses (Goh et al., 2020). The need to be proactive in task completion was emphasised by both categories of nurses, with each category perceiving their duties as more complex and time consuming (Goh et al., 2020). However, both categories of nurses were in agreement that trust and respect are foundational to a good working relationship (Goh et al., 2020).

Upholding the ethos of nursing and ensuring adherence to ethical patient care is crucial as it ensures no harm is done to the patient while in the midwife's care. In the present study, nursing students expressed confidence in this practice. Similar findings were reported in various studies (Usher et al., 2015; Woods et al., 2015; Casey et al., 2011). However, in some studies, practising midwives were found not to be adhering to midwifery practice that was taught during undergraduate training. They overlooked issues such as hand washing between patients, adhering to principles of conducting a sterile procedure and taking responsibility for the supervision of nursing students (Malwela et al., 2016). Nursing and midwifery practice is advocating for the use of evidence-based patient care and not using practices that are not research-based. Hobbs (2012) found that newly qualified midwives reported challenges they experienced with experienced midwives who had entrenched viewpoints, but the newly qualified midwives practised according to the training they received at university.

Most nursing students reported using current evidence in making clinical decisions and felt comfortable taking action to solve problems. Guner (2014), in a study to determine the preparedness levels of final-year Turkish nursing students starting their careers as professional nurses, found that less than 70% of nursing students felt prepared to assume work in the areas of evidence-based decision-making, leadership and to follow up on scientific developments in nursing. Furthermore, nursing students expressed confidence in communication and coordinating

patient care with the members of the multidisciplinary team. In other studies, nursing students reported using current evidence in their clinical decision-making, felt comfortable taking action to solve problems and were confident communicating and coordinating patient care with the multidisciplinary team members (Usher et al., 2015; Woods et al., 2015; Casey et al., 2011).

Patient safety is the primary concern of all healthcare providers. The ability to timeously identify potential risks for patients in your care is an important role in both nursing and midwifery practice. In the current study, the majority of nursing students expressed confidence in their ability to identify actual and/or potential safety risks to their patients. Nursing students in Australia and the USA also reported similar findings (Usher et al., 2015; Woods et al., 2015; Casey et al., 2011). Care of a dying patient is one of the fundamental activities in nursing. It is essential that the care rendered to the patient during this period is methodical and dignified. Fenwick et al. (2012) found that nursing students were left unsupported by the midwives after experiencing a traumatic experience; for example, after an unexpected death of a baby, the nursing student was left to care for the mother alone, which was an overwhelming experience.

Sidebotham and Fenwick (2019) found that nursing students valued writing reflective journals as they enabled them to review the events of an adverse outcome and apply critical thinking skills to learn from the event, "debrief" and further improve their decision-making skills. Usher et al. (2015) reported that nursing students agreed that writing reflective journals provided insights into their own clinical decision-making skills. However, Woods et al. (2015) and Casey et al. (2011) found that nursing students reported that writing reflective journals was not helpful in improving their decision-making or critical thinking skills, findings which are similar to those of the current study.

### 5.5.3 Systems of care

The safety and effectiveness of healthcare services can be measured through the quality of their medical records (Medical Protection Society, 2014). Documentation is an important activity in patient care as it provides evidence of the care rendered and promotes continuity of care. Nursing students expressed confidence in documenting patient care in the care plan and progress notes and prioritising patient care needs. In South Africa, failure to record patient information is regarded as an omission of patient care (SANC, 2014). Documentation and recordkeeping are therefore fundamental daily nursing functions that are prescribed by the law, and failure to comply may constitute negligence, leading to disciplinary action being taken against the responsible nurse (SANC, 2014). Skirton et al. (2012) found that newly qualified midwives experienced difficulty in prioritising care in postnatal wards, antenatal screening, caring for mothers with mental health problems and babies with congenital abnormalities.

Shihundla et al. (2016), in their study conducted in South Africa to investigate the effects of increased workload on the quality of patient information documentation in primary healthcare facilities, found that there were multiple documents (namely registers, books and checklists) that needed to be completed for one patient at a time. Due to the increased workload and multiple documents available, nurses were unable to thoroughly complete the patient information documentation as required (Shihundla et al., 2016). Poor recordkeeping and illegible documentation affected patient outcomes due to the inability to read and comprehend entries made by colleagues in the patient file (Shihundla et al., 2016). Nakate et al. (2015) found that due to a lack of clear documentation processes, shortage of staff, lack of time, increased workloads and perceived lack of interest from the nurses, the quality of documentation was poor. A lack of knowledge and training for nursing staff regarding documentation, lack of standardisation of practice, lack of policies and lack of support from nursing management also caused poor recordkeeping and documentation practices (Nakate et al., 2015).

Teamwork and continuity of care are important aspects of rendering quality patient-centred care. Other studies reported on nursing students' ability to identify a significant change in their patient's condition and asking for help from other members of the multidisciplinary team (Woods et al., 2015; Usher et al., 2015; Casey et al., 2011), with findings similar to those of the current study. Cooper et al. (2010), however, found that nursing students were unable to identify and/or manage a change in patient condition at the point of graduation. Fenwick et al. (2012) found that when there were positive interactions among the multidisciplinary team, newly qualified midwives perceived the environment as supportive and experienced increased levels of confidence, which promoted self-learning and development.

Sidebotham and Fenwick (2019) found that nursing students perceived teamwork as a fundamental requirement for the successful provision of the caseload model. This required the midwife, nursing student, patient and family to be involved in all decision-making regarding the care rendered, thus promoting transparency, open communication and trust among all parties involved (Sidebotham & Fenwick, 2019). Goh et al. (2020) reported that poor teamwork increased the incidence of missed nursing care, which is used as an indicator for the quality of care rendered to and safety of patients. The incidents of missed care were attributed to shortage of staff, increased workload, shortage of medical supplies and poor communication among the team (Goh et al., 2020).



### 5.6 Gaps and needs identified

#### 5.6.1 Choosing nursing as a career

Nursing is known as a noble profession that focuses on caring for and showing compassion to others and making a difference in people's lives. Price et al. (2013), in their study conducted in Canada to understand the experience of choosing nursing as a career among individuals of the millennial generation, found that all the participants wanted to make a difference in people's lives

and help others. As in the present study, for some, choosing nursing as a career was a family tradition (Price et al., 2013). Nursing is a preferred choice as it offers employment, financial security, professional growth and travel opportunities (Price et al., 2013; Woods et al., 2015; Casey et al., 2011). Maor and Cojocaru (2017), in a study conducted in Israel, found that there was a strong family influence in the choice of nursing students to follow this career, and employment opportunities and guaranteed employment security were important (Maor & Cojocaru, 2017). Other motivators reported in this study included the opportunity to help others, fulfilling one's destiny, and positive past experiences in healthcare facilities where nurses displayed compassion (Maor & Cojocaru, 2017).

Nesje (2014), in a study conducted in Norway investigating how prosocial work motivation related to job involvement and career commitment for final-year nursing students, found that nursing students agreed that prosocial motivation was important in assessing a new employment opportunity. Nesje (2014) reported that there was no significant relation between prosocial motivation and job involvement, but there was a moderate association between prosocial motivation and career commitment. Career commitment and job involvement had a notably strong association (Nesje, 2014). The study also found that prosocial values not only serve as a motivating factor to enter the nursing profession, but also serve as motivation to remain committed in the nursing profession (Nesje, 2014).

However, in a study conducted in New Zealand by Walker and Clendon (2018) examining the factors which contributed to nurses choosing to exit the nursing profession before retirement age, the authors found that prosocial values alone do not keep nurses motivated to remain in the nursing profession. Part-time nurses reported a lack of confidence due to poor orientation and support experienced as reasons for leaving the profession (Walker & Clendon, 2018).

### 5.6.2 Preparation to enter the midwifery profession

#### 5.6.2.1 Clinical placement

Clinical placements are responsible for assisting nursing students to integrate the theory learnt in class into practice. The period spent in clinical placements accounts for almost half of the midwifery module with the aim of preparing well-skilled midwives. The results indicate the need for more clinical placement hours for nursing students. Previous research has reported similar findings (Woods et al., 2015; Usher et al., 2015; Casey et al., 2011). It has also been reported that there is a lack of orientation upon arrival at the new clinical placement environments to familiarise nursing students or newly appointed nursing personnel (Fenwick et al., 2012).

The present study highlights a need for mentors who will provide hands-on training at the patient's bedside. Lakhani et al. (2018) found that nursing students valued clinical learning as they had hands-on, dedicated mentors. Previous research has found that inconsistencies in student accompaniment and supervision caused confusion among nursing students, causing poor integration of theory into practice (Vuso & James, 2017). Tyler-Viola et al. (2012) found that due to faculty shortages, clinical teaching was left to midwives, as clinical mentors were often absent during clinical care, and this caused a challenge for nursing students as the midwives were more focused on patient care, due to shortages of staff, and left no time to review patient care scenarios with nursing students. Fenwick et al. (2012) also found that a lack of support from the midwives was attributed to their focus on patient care rather than guiding the newly qualified midwives.

Usher et al. (2015) found that even after the introduction of a capstone subject, nursing students did not report increased levels of confidence in patient care; however, the authors suggest that the content of the undergraduate programmes be reviewed. Kool et al. (2020) reported that newly qualified midwives suggested on-the-job training and continuous education to help them learn more about their area of speciality as good employment resources. This finding is further supported

by Fenwick et al. (2012), who reported that newly graduated midwives suggested a dedicated midwife to work one-on-one with them to transfer their knowledge and skills in order for newly graduated midwives to be upskilled for the highly demanding workplace.

Alternative clinical placement models have proven to be somehow more effective than the shift-based clinical placement as the latter is perceived to offer fragmented midwifery services (Sidebotham & Fenwick, 2019). Sidebotham and Fenwick (2019) found that nursing students engaged in the caseload model reported a better understanding of the role and responsibilities of a midwife and were able to integrate theory into practice through observing how the midwives managed their caseloads. Nursing students also appreciated the autonomy shown by caseload midwives during their interactions with the patients and other healthcare workers, and the structure and flexibility in task performance (Sidebotham & Fenwick, 2019).

#### 5.6.2.2 Module structure

In this study, a change in the module structure was recommended. Blaauw et al. (2014, p. 3) have critiqued the R425 programme for its "excessive training in all four areas of care, and for inadequate preparation of graduates for competent practice in all areas, especially midwifery". Waterson et al. (2006) conducted a study in a nursing college in which they found that nursing students and tutors complained of the overloaded curriculum. This led to a revision of the curriculum to make it more realistic and relevant to contextual issues and the nursing students. Blaauw et al. (2014) have motivated for a new revised nursing degree programme designed to address the health demands of the country and meet the changes in higher education. There is also a skills deficit among nurse educators. Armstrong and Rispel (2015) found that the majority of nurse educators facilitating the R425 programme lacked modern teaching skills, were not up to date in their knowledge and had not kept abreast with the changes in clinical practice.

Limited modern teaching technologies and resources in the NEIs and clinical placement facilities impacted negatively on nursing students' education (Armstrong & Rispel, 2015). There is a lack of national staffing norms which has led to personnel shortages, which have negatively impacted on nursing students' clinical education as they lacked supervision and mentoring in clinical facilities (Armstrong & Rispel, 2015). Yigzaw et al. (2015), in a study in Ethiopia, reported on similar findings with nursing students rating the clinical placement areas negatively due to the perceived lack of support and dedicated preceptors.

Small, overcrowded classrooms and busy maternity units may affect learning, and there is a need for more simulation learning opportunities in safe and controlled settings (Tyler-Viola et al., 2012). This does not mean, however, that all learning should take place through simulation; it is important for students to gain "real world" clinical experience. Learning opportunities where there is inclusive teaching (i.e. the opinions of students are taken seriously) are valued more than in-class didactic teaching (Carolan-Olah & Kruger, 2014). Chandekar (2012) found that the majority of nursing students perceived the time allocated for the theoretical aspect as inadequate, as some of the topics were not addressed by the lecturers.

Schytt and Waldenstrom (2013) found that qualified midwives and obstetricians perceived midwifery education as not adequately preparing nursing students for clinical practice as they reported low confidence levels of new graduate midwives. Yet the nursing students were satisfied with how the midwifery education prepared them for clinical practice, though they reported time limitation in intrapartum care placement (Schytt & Waldenstrom, 2013). Also, Skirton et al. (2012) reported on newly qualified midwives' satisfaction with the theoretical knowledge gained at university even though they lacked practical experience in managing intrapartum emergencies. Furthermore, the midwifery curriculum was perceived as crowded and more focused on achieving prescribed objectives. Vuso and James (2017) and Haraldseid et al. (2015) also reported on the lack of standardised policies and guidelines in clinical skills performance as a contributory factor

to nursing students' inability to achieve prescribed learning objectives and as compromising the quality of patient care.

#### 5.6.2.3 Attitudes of midwives

To improve the quality of healthcare in the public health services and address complaints raised by the public about health facilities, quality improvement monitoring has been introduced in South Africa (National Department of Health, 2011). The National Core Standards (NCS) for health establishments in South Africa consists of six domains, of which one is healthcare workers' attitudes (National Department of Health, 2011). In this study, nursing students report on the negative attitude they experienced from midwives at clinical placement areas which negatively affected their performance and ability to achieve objectives. Similar findings were reported by Hobbs (2012) with newly qualified midwives concerned about the negative treatment they received from midwives and the lack of enthusiasm displayed by some of the mentors and preceptors. The newly qualified midwives expressed their dissatisfaction with the negative behaviours displayed by midwives which hindered learning and left them unable to cope and/or work within the maternity environment (Fenwick et al., 2012). Fenwick et al. (2012) found that newly qualified midwives viewed the hospital maternity environment as a hierarchical system controlled by those longest in the system and focusing on complaints management rather than woman/family-centred care. The system was perceived as orientated towards compliance with rules, where routines and task completion took precedence over individualised patient needs (Fenwick et al., 2012).

Malwela et al. (2016), in a study about factors affecting integration of midwifery nursing science theory with clinical practice in Vhembe District, Limpopo Province as perceived by professional midwives, found that midwives reported having a negative attitude towards nursing students and

even labelled the R425 or comprehensive four-year nursing students as irresponsible and lazy. The authors further reported that the midwives felt that they were not lecturers and therefore did not see the need to perform the teaching function, while some midwives reported a lack of teaching skills (Malwela et al., 2016). Final-year nursing students reported minimal to absent supervision by midwives as they reported being thrown into the deep end to integrate theory and practice (Licqurish & Seibold, 2008) and were viewed by midwives as colleagues as they were nearing completion of their studies (Malwela et al., 2016). Yet in this study, nursing students reported not being supervised by midwives as they were regarded as students and delegated menial tasks that were not in line with their objectives; similar findings were reported by Mabuda, Potgieter and Alberts (2008) in a study conducted to explore student nurses' experiences during clinical practice in the Limpopo Province.

Carolan-Olah and Kruger (2014) and Licqurish and Seibold (2013) found that nursing students were more focused on what they needed to know and achieving minimum requirements for midwifery practice prior to final placement or graduation rather than being involved in all other aspects of patient care. The results of the current study suggest that midwives are not familiar with nursing students' objectives according to year level. Kaddoura (2010) reported that clinical skills were first taught in simulation laboratories to allow nursing students an opportunity to practise in a safe environment prior to placement in clinical areas, thus protecting patients from avoidable clinical errors by nursing students. Furthermore, nursing students expressed that they experienced mistrust from midwives as they were not allowed to independently care for patients in the maternity unit, nor were they allowed to participate in patient care planning. Licqurish and Seibold (2008) found that midwives were unsupportive towards nursing students and did not allow them hands-on practice. Furthermore, Guner (2014) found that staff nurses did not allow nursing students time to practice as they were "very busy" and therefore unable to supervise.

Fenwick et al. (2012) found that newly qualified midwives had increased levels of anxiety due to the harsh learning environment they experienced with midwives being impatient towards them. Different findings were reported by Edwards et al. (2004) in a study conducted in Australia to investigate the impact of clinical placement location on nursing students' competence and preparedness for practice. The authors found that nursing students expressed high levels of satisfaction with four aspects contributing to positive clinical experience, i.e. feeling part of the clinical team, support for learning, feeling valued for their contribution in patient care and obtaining diversity of clinical experience. Sidebotham and Fenwick (2019) found that the nursing students experienced positive learning environments due to the trust built among the midwives and themselves, which promoted teaching and learning. Furthermore, the nursing students were encouraged to take the lead in patient interviews in order to gain knowledge and be able to draw up a care plan that was applicable to the patient under the guidance of the midwife (Sidebotham & Fenwick, 2019).

Walker and Clendon (2018) found that most nurses left the nursing profession before the retirement age due to burnout, workplace stress, physical demands of the job, exhaustion, fatigue and patient care-related emotional distress. Furthermore, the participants reported being overwhelmed by the high workload, shortage of staff, workplace bullying and violence, unsafe working environments, poor support from management and lack of policies (Walker & Clendon, 2018). Furthermore, poor professional recognition, low income, lack of professional development, poor career progression opportunities and poor job satisfaction were contributory factors to the decision to leave the nursing profession (Walker & Clendon, 2018).

#### 5.6.2.4 Lack of interest

The results suggest that some nursing students are not interested in practising as midwives. The issue of compensation raised by nursing students in the current study was also noted by Sidebotham and Fenwick (2019), with nursing students expressing the need to be compensated as they were unable to work outside the placement period. However, the nursing students reported high levels of interest in practising as caseload midwives as the working hours were flexible and decided upon by themselves (Sidebotham & Fenwick, 2019). Kaihlanen et al. (2016) found that as much as nursing students were anxious about giving up their student role, the majority were excited about changing the role from youth to adulthood and gaining financial freedom. Chandekar (2012) found that only 7% of the nursing students opted to practise as midwives; the majority preferred to work in operating theatres or intensive care units. Goh et al. (2020) found that about 13 of the 248 participants were dissatisfied with their job as a nurse.

#### 5.6.2.5 Self-preparation

Nursing students reported on the importance of taking responsibility for their own midwifery practice, which facilitated ownership and accountability, thus promoting independent practice (Sidebotham & Fenwick, 2019). Also, Sidebotham and Fenwick (2019) found that when nursing students became increasingly motivated, they took responsibility for ensuring that they were adequately knowledgeable to be able to render quality care to the patients. Nursing students in this study acknowledged the positive role self-preparation plays. Similar findings were reported by Davies and Coldridge (2015), with nursing students acknowledging the dynamic nature of midwifery practice, as a patient's condition changes without warning, thus fostering new learning with each patient care activity. Also, while the majority of the nursing students were concerned about the lack of teaching by the qualified nurses and student preceptors, some nursing students

used that as an opportunity to practise and develop clinical skills independently (Davies & Coldridge, 2015). Fenwick et al. (2012) found that when newly qualified midwives perceived the maternity environment as supportive and positive, they took the initiative to develop their own knowledge and skills and asked for support from the senior midwives only when necessary.

Skirton et al. (2012) found that when newly qualified midwives were placed in new, unfamiliar situations, their confidence levels were increased due to coping with those situations. The newly qualified midwives also acknowledged that though midwife teachers played a role in preparing them for clinical practice, the onus remained on the individual to learn through hands-on experience (Skirton et al., 2012). Chandekar (2012) found that the majority of nursing students expressed the importance of practising skills more in order to gain experience to practice independently. Nursing students expressed the benefit of being open to learning new things through asking and observing colleagues in order to gain more experience in clinical practice and to participate in education and training activities in their field of interest (Kaihlanen et al., 2016).



**5.7 Summary**

In this chapter, the results of the study were discussed. This study found that nursing students expressed low levels of confidence in practising independently in their new role as registered midwives. Studies in a number of countries have reported similar concerns. The transition from novice to independent, confident and competent midwife is a process which continues after completion of the pre-registration programme. In the next chapter, which summarises the results, study limitations and recommendations will be presented.

# CHAPTER 6

# RECOMMENDATIONS, LIMITATIONS AND CONCLUSION

## 6.1 Introduction

The study aimed to investigate the perception of self-preparedness for midwifery practice of nursing students at a university in the Western Cape, South Africa. Nursing students identified eight basic midwifery skills that they found most challenging to perform independently. As the number of patients for whom they had to care increased, the confidence of nursing students decreased. Nursing students also displayed low confidence levels in delegating duties to nursing assistants, dealing with ethical issues in their patient care responsibilities and assuming the midwife role. Improvements recommended to help prepare them for the midwife role were related to clinical placements, module structure and attitudes of midwives.

## 6.2 Recommendations

There is a need to develop concise guidelines to address the identified gaps in the preparation of undergraduate nurses for midwifery practice. The following recommendations are made based on the results of the study.



### 6.2.1 Recommendations for nursing education

The current curriculum meets the minimum requirements for registration with SANC. However, the module can be structured over a longer period than it currently is, for example, a year. Nursing students can be exposed to the theoretical content prior to being placed in high-risk areas, for example, neonatal units. The clinical placement period can also be extended. A clinical placement in the final year can be helpful for nursing students. Simulation laboratory technicians or

supervisors can assist by scheduling individualised practice sessions to assist nursing students to gain more experience and confidence in skill performance. The academic staff responsible for student accompaniment need to keep abreast with new practices in clinical areas in order to be able to support the nursing students effectively. Clinical accompaniment by mentors can be conducted at the patient's bedside, affording the students the opportunity to gain more hands-on practice.

### 6.2.2 Recommendations for practice and policy

Standardised procedure manuals need to be developed to assist nursing students in task performance. SOPs for clinical accompaniment of nursing students need to be revised and updated, clearly outlining the objectives to be met per year level at clinical facilities. Standardised task lists or delegation books need to be instituted to afford nursing students exposure to the prescribed objectives. Though there are staffing challenges at clinical facilities, dedicated ward preceptors would be beneficial for the supervision, guidance and support of nursing students at ward level. A standardised facility and ward orientation programme for nursing students would help them understand the layout and rules of the institutions. Supervision and involvement of nursing students in patient care planning activities would aid them in developing decision-making skills. Guided practice by midwives, preceptors or mentors would assist the nursing students in gaining confidence to independently perform basic midwifery skills.

### 6.2.3 Recommendations for further research

Adequate preparedness for practice after graduation is important for the graduate as well as the services. Graduates who perceive themselves as underprepared may place themselves and their patients at risk.

It is recommended that further research investigating the perceived self-preparedness of final-year nursing students for midwifery practice in South Africa be conducted. Such research should include perceived and actual competencies, attitudes of professional nurses and midwives towards students and new graduates, and delegation competencies.

### 6.3 Limitations

The setting of the study was a single school of nursing of a university in the Western Cape. Each university in South Africa is autonomous with respect to curricula, thus there are different approaches to this programme, although the prescribed education and training standards and regulations must be adhered to. The results of this study therefore cannot be generalised to other schools of nursing. The population size of the current study was relatively small (112 final-year nursing students).

Data collection was conducted on the first Friday of term four. It was only after the data collection had been completed that the researcher was apprised of the fact that the students had just written a test and had an assignment due. This may have affected the attendance and the attention given to the questionnaire. The timing of such data collection is important.

Studies into preparedness of final-year nursing students for midwifery practice are limited, and no published studies using the Casey-Fink survey instrument in South Africa were found. This limitation means that it was not possible to compare the results of this study with similar studies based in South Africa.

### 6.4 Conclusion

The results indicated that nursing students had low confidence in performing basic midwifery skills, managing multiple patients in the maternity unit, dealing with ethical issues related to

patient care, delegating duties to nursing assistants and assuming the midwife role. Nursing students identified gaps that can inform the higher education institution of their needs. Recommendations have been made for education, practice, policy and research.

For newly qualified registered nurses to feel adequately prepared for midwifery practice, it is important that not only are students well prepared during their undergraduate programme but will benefit from mentorship and continued learning opportunities in their new roles.

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# APPENDICES

## Appendix I: University Ethics Approval

OFFICE OF THE DIRECTOR: RESEARCH
RESEARCH AND INNOVATION DIVISION

Private Bag X17, Bellville 7535
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T: +27 21 959 4111/2948
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E: research-ethics@uwc.ac.za
www.uwc.ac.za

13 August 2019

Ms NT Ramahlo
School of Nursing
**Faculty of Community and Health Sciences**

**Ethics Reference Number:** HS19/6/30

**Project Title:** The self- perception of preparedness for Midwifery practice of final-year university nursing students at a University in the Western Cape/ South Africa

**Approval Period:** 13 August 2019 – 13 August 2020

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

**Please remember to submit a progress report in good time for annual renewal.**

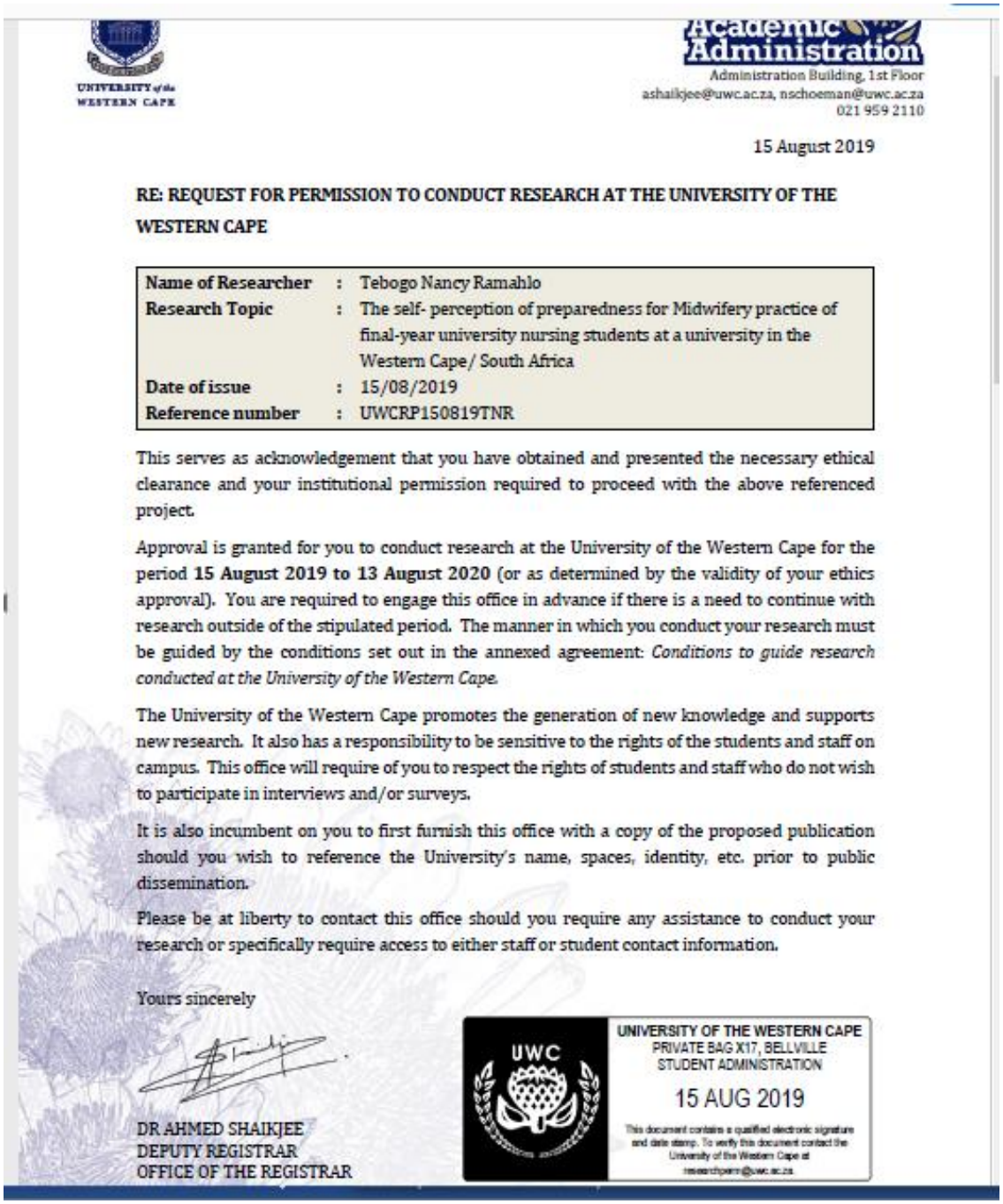
The Committee must be informed of any serious adverse event and/or termination of the study.

*Ms Patricia Josias*
*Research Ethics Committee Officer*
*University of the Western Cape*

***HSSREC REGISTRATION NUMBER - 130416-049***

FROM HOPE TO ACTION THROUGH KNOWLEDGE

## Appendix II: Registrar approval to conduct study



UNIVERSITY of the WESTERN CAPE

Academic Administration
Administration Building, 1st Floor
ashaikjee@uwc.ac.za, nschoeman@uwc.ac.za
021 959 2110

15 August 2019

**RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT THE UNIVERSITY OF THE WESTERN CAPE**

| | | |
|---|---|---|
| **Name of Researcher** | : | Tebogo Nancy Ramahlo |
| **Research Topic** | : | The self- perception of preparedness for Midwifery practice of final-year university nursing students at a university in the Western Cape/ South Africa |
| **Date of issue** | : | 15/08/2019 |
| **Reference number** | : | UWCRP150819TNR |

This serves as acknowledgement that you have obtained and presented the necessary ethical clearance and your institutional permission required to proceed with the above referenced project.

Approval is granted for you to conduct research at the University of the Western Cape for the period **15 August 2019 to 13 August 2020** (or as determined by the validity of your ethics approval). You are required to engage this office in advance if there is a need to continue with research outside of the stipulated period. The manner in which you conduct your research must be guided by the conditions set out in the annexed agreement: *Conditions to guide research conducted at the University of the Western Cape.*

The University of the Western Cape promotes the generation of new knowledge and supports new research. It also has a responsibility to be sensitive to the rights of the students and staff on campus. This office will require of you to respect the rights of students and staff who do not wish to participate in interviews and/or surveys.

It is also incumbent on you to first furnish this office with a copy of the proposed publication should you wish to reference the University's name, spaces, identity, etc. prior to public dissemination.

Please be at liberty to contact this office should you require any assistance to conduct your research or specifically require access to either staff or student contact information.

Yours sincerely

DR AHMED SHAIKJEE
DEPUTY REGISTRAR
OFFICE OF THE REGISTRAR

UWC
UNIVERSITY OF THE WESTERN CAPE
PRIVATE BAG X17, BELLVILLE
STUDENT ADMINISTRATION
15 AUG 2019
This document contains a qualified electronic signature and date stamp. To verify this document contact the University of the Western Cape at researchpermit@uwc.ac.za

**Appendix III: Director- SoN approval to conduct study**

TEBOGO NANCY RAMAHLO <3777

## Permission to conduct study

**Jennifer-Anne Chipps** <jchipps@uwc.ac.za> Tue, Aug
To: TEBOGO NANCY RAMAHLO <3777280@myuwc.ac.za>, PORTIA BIMRAY <pbimray@uwc.ac.za>

Thank you Ms Ramahlo
Please liaise with Dr Bimray so she can guide you to the correct staff member to liaise with

Prof Jennifer Chipps
Director School of Nursing
Faculty of Community and Health
THE UNIVERSITY OF THE WESTERN CAPE

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[Quoted text hidden]

**Appendix IV: Information sheet**

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa
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E-mail: 3777280@myuwc.ac.za

**INFORMATION SHEET**

**Project Title: The self- perception of preparedness for Midwifery practice of final-year university nursing students at a University in the Western Cape/ South Africa**

**What is this study about?**
This is a research project being conducted by Tebogo Ramahlo, a Masters in Nursing Education student at the University of the Western Cape. We are inviting you to participate in this research project because your university is one of the leading nurse training institutions and you are currently enrolled for the final-year of your Bachelor of Nursing degree. The purpose of this research project is to investigate the self- perception of preparedness for Midwifery practice of final-year university nursing students at a University in the Western Cape/ South Africa

**What will I be asked to do if I agree to participate?**
You will be asked to complete a survey that asks questions related to skills learned during nursing training and the level of confidence for midwifery practice. The survey will be conducted at the premises of the School of Nursing and participation in the research is voluntary. The survey will be distributed by the researcher assisted by the lecturers and should take approximately 15 minutes to complete.

**Would my participation in this study be kept confidential?**
The researcher undertakes to protect your identity and the nature of your contribution. To ensure your anonymity, the survey is anonymous and will not contain information that may personally identify you. To ensure your confidentiality, your name will not be included on the survey; a code will be placed on the survey and other collected data; through the use of identification key, the researcher will be able to link your survey to your identity; and only the researcher will have access to the identification key. The survey sheets will be kept locked in a lockable cupboard with access limited to the researcher and supervisor only. The computer files where data will be entered will be password-protected. If we write a report or article about this research project, your identity will be protected as participants and institutions names will not be identified in the report of publication.

**What are the risks of this research?**
All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

**What are the benefits of this research?**
This research is not designed to help you personally, but the results may help the investigator learn more about self- perception of preparedness for Midwifery practice of final- year university nursing students. We hope that, in the future, other people might benefit from this study through improved understanding of gaps and needs identified by final-year nursing students within the curricula and may help inform the University of new strategies to be employed to address the identified gaps or needs.

**Do I have to be in this research and may I stop participating at any time?**
Your participation in this research is voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

**What if I have questions?**
This research is being conducted by ***Tebogo Ramahlo, School of Nursing*** at the University of the Western Cape. If you have any questions about the research study itself, please contact Tebogo Ramahlo at cell phone number: +27672675018 or email address: 3777280@myuwc.ac.za

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Professor Pat Mayers (Research Supervisor)
pmayers@uwc.ac.za or tel: 0219591723

OR
Prof J Chipps
Head: School of Nursing
University of the Western Cape
Private Bag X17
Bellville 7535
Tel: 021 959 3024
Email: jchipps@uwc.ac.za

This research has been approved by the University of the Western Cape's Humanities and Social Sciences Research Ethics Committee.

HSSREC
Research Development
Tel: 021 959 4111
Email: research-ethics@uwc.ac.za

**Appendix V: Consent form**

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa
*Tel: +27 21-959 3024, Fax: 27 21-959 2679*
E-mail: 3777280@myuwc.ac.za

**CONSENT FORM**

**Title of Research Project:** **The self- perception of preparedness for Midwifery practice of final-year university nursing students at a University in the Western Cape/ South Africa**

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

**Participant's name**.....

**Participant's signature**.....

**Date**.....

## Appendix VI: Permission to use and adapt instrument



University of the Western Cape Mail

TEBOGO NANCY RAMAHLO <3777280@myuwc.ac.za>

**RE: Casey-Fink Readiness for Practice Survey(c)**

**Fink, Regina** <Regina.Fink@ucdenver.edu> Mon, Oct 8, 2018 at 8:51 PM
To: TEBOGO NANCY RAMAHLO <3777280@myuwc.ac.za>, "kathy.casey@sclhs.net" <kathy.casey@sclhs.net>
Cc: "kathryn.casey@dhha.org" <kathryn.casey@dhha.org>

Tebogo –

Please note Kathy Casey's new email address.

Thank you for your inquiry. Have you completed our survey online? We try to keep a database of all who are planning to use our instrument.

https://www.uchealth.org/professionals/professional-development/casey-fink-surveys/

You have our permission to adapt the list of skills. If you do make changes to the comfort and confidence section (questions 1-25) of our instrument then reliability and validity may be affected. Just letting you know. Good luck with your work.

Best—

Regina

**Regina M. Fink, PhD, APRN, AOCN, CHPN, FAAN**

**Associate Professor, Adjunct**

**Co-Director Interprofessional Master of Science and Certificate Programs in Palliative Care**

**University of Colorado School of Medicine & College of Nursing**

**Anschutz Medical Campus**

12631 E. 17th Avenue

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**Box B-180**

**Aurora, CO 80045**

regina.fink@ucdenver.edu

**303.724.9192 work**

**303.886.8655 cell**

PallCare_final_print

## Appendix VII: Self-report questionnaire

**Casey-Fink Readiness for Practice Survey**



Please fill in the blank or circle the response that represents your individual profile.

1. Age:_____years

2. Gender:
   a. Female
   b. Male
   c. Other

3. Ethnicity:
   a. Black
   b. Coloured
   c. Indian
   d. White
   e. Other
   f. I do not wish to include this information

4. Citizenship
   a. RSA
   b. Non-RSA

5. Other non-nursing qualification if applicable (tick √ applicable box)

| | | | |
|---|---|---|---|
| Higher Certificate | Bachelor's Degree/ Advanced Diploma | Master's Degree | None |
| Diploma/ Advanced Certificate | Bachelor's Honours Degree/ Postgraduate Diploma/ Bachelor's Degree | Doctoral Degree | |

6. What previous health care work experience have you had?
   a. Professional Nurse: General
   b. Enrolled Nurse
   c. Enrolled Nursing Assistant
   d. Ward Clerk
   e. Home- based Care
   f. Paramedic
   g. Volunteer
   h. None
   i. Other: (please specify) _____

7. Please share the major reasons why you chose nursing as a career.

_____

_____

8. Type of BNUR programme enrolled in:

   a. Four-year/ Mainstream programme

   b. Extended Curriculum/ Foundation programme

1

9. What type of funding are you using?
    a. Self-funded
    b. Bursary
    c. NSFAS
10. Year started BNUR programme: _____

11. What setting was your Midwifery clinical placement experience located? circle applicable answer/s
    a. Maternity Obstetric Unit (MOU)
    b. District/ Level 1 hospital e.g. Karl Bremer, Stellenbosch, New Somerset
    c. Secondary/ Level 2 hospital e.g. Mowbray Maternity
    d. Tertiary/ Level 3 hospital e.g. Tygerberg, Groote Schuur
    e. Other: _____
12. How many clinical hours were you required to complete during your Midwifery placement in 3rd year?

    #_____Hours
13. Average number of hours you worked per week while in Midwifery placement

    #_____Hours
14. Average Midwifery examination mark you obtained

    #_____%

15. How many hours per week did you spend with your mentor during your Midwifery placement?

    #_____Hours

16. How many preceptors (ward mentors) did you have during your Midwifery placement experience per ward?

    #_____Preceptor/ ward

17. Were you required to repeat a module/ year during the course?
    a. Module
    b. Year
    c. None

18. What did YOU do to prepare for your Midwifery placement experience: (**circle answer/ may select more than one answer**)
    a. Practiced skills in simulation laboratory
    b. Participated in case study assignment
    c. Developed a care plan for a maternity patient
    d. Set daily goals with preceptor

e. Met with preceptor prior to start of clinical experience
f. Oriented to facility/tour unit
g. Discussed personal learning needs with operational manager/ preceptor
h. Did nothing to prepare
i. Other: _____

**19. List three skills/procedures you are most uncomfortable *performing* independently at this time?** *Select from list below (**write only the letter**).*

1. _____
2. _____
3. _____

List of skills

a. Performing abdominal examination and symphysis fundal height measurement
b. Interpretation of fetal movements chart
c. Plotting and interpretation of gravidogram
d. Discuss birth plan with pregnant woman
e. Interpretation of booking bloods
f. Initial assessment of labour
g. Performing pelvic assessment and vaginal examination
h. Plotting and interpretation of the partogram
i. Conducting Normal Vaginal Delivery
j. Management of 3rd and 4th stage of labour
k. Suturing of Episiotomy/ 1° & 2°Tear
l. Initiate Skin to Skin Care
m. Diagnosis and immediate management of postpartum haemorrhage
n. Management of post normal vaginal delivery mother
o. Management of post caesarean section mother
p. Render postpartum family planning and counselling
q. Perform initial assessment of the neonate including APGAR score
r. Performing neonatal resuscitation
s. Administer birth Immunizations
t. Other.....

**20. Please answer each of the following questions by placing a mark inside the box:**

What is your current level of confidence in independently managing patients in a maternity unit?

| | NOT CONFIDENT 1 | 2 | 3 | 4 | VERY CONFIDENT 5 |
|---|---|---|---|---|---|
| Caring for 2 patients | | | | | |
| Caring for 3 patients | | | | | |
| Caring for 4 patients | | | | | |

3

**21. Please answer each of the following questions by placing a mark inside the circles:**

| | STRONGLY DISAGREE | DISAGREE | AGREE | STRONGLY AGREE |
|---|---|---|---|---|
| 1. I feel confident communicating with doctors. | O | O | O | O |
| 2. I am comfortable communicating with patients from diverse populations. | O | O | O | O |
| 3. I am comfortable delegating tasks to the nursing assistant. | O | O | O | O |
| 4. I am comfortable documenting care in the care plan and progress notes. | O | O | O | O |
| 5. I feel comfortable prioritizing patient care needs. | O | O | O | O |
| 6. My clinical instructor/ mentor provided feedback about my readiness to assume a Registered Midwife role. | O | O | O | O |
| 7. I am confident in my ability to problem solve. | O | O | O | O |
| 8. I feel confident dealing with ethical issues in my patient care responsibilities. | O | O | O | O |
| 9. I am confident in my ability to recognize a significant change in my patient's condition. | O | O | O | O |
| 10. I have had opportunities to practice skills and procedures more than once. | O | O | O | O |
| 11. I am comfortable asking for help. | O | O | O | O |
| 12. I use current evidence to make clinical decisions. | O | O | O | O |
| 13. I am comfortable communicating and coordinating care with multidisciplinary team members. | O | O | O | O |
| 14. Simulations have helped me feel prepared for clinical practice. | O | O | O | O |
| 15. Writing reflective journals/logs provided insights into my own clinical decision-making skills. | O | O | O | O |
| 16. I feel comfortable knowing what to do for a dying patient. | O | O | O | O |
| 17. I am comfortable taking action to solve problems. | O | O | O | O |
| 18. I feel confident identifying actual or potential safety risks to my patients. | O | O | O | O |
| 19. I am satisfied with choosing nursing as a career. | O | O | O | O |
| 20. I feel ready for the professional midwife role. | O | O | O | O |

**22. What could be done to help you feel more prepared to enter the midwifery profession?**

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Thank you for completing this survey!

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## Appendix VIII: Editor's letter

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8 December 2019

To whom it may concern

I hereby declare that I, Nathan Thomas Lowe, edited Tebogo Nancy Ramahlo's thesis entitled 'The self-perception of preparedness for midwifery practice of final-year nursing students at a university in the Western Cape, South Africa'.

Regards

Nathan T Lowe

Language practitioner for the University of Pretoria's Language Unit